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ABSTRACT

This report summarizes and documents the major technical aspects of the High School and Beyond (HS&B) third follow-up survey conducted during the spring and summer of 1986. Young persons who, either as sophomores or as seniors, had participated in the base year survey in 1980 were contracted for the fourth time in 1984 and asked to complete questionnaires detailing their activities since leaving high school. The senior and sophomore cohort samples for the third follow-up survey were the same as those used for the first and second follow-ups. Survey activities were initiated for all sample members. Mail-back questionnaires were the basic method of data collection and approximately 26,800 packets of survey materials were mailed. Telephone and personal interviews were conducted for those not responding by mail. Approximately 66% of both samples mailed back completed questionnaires; 5% of the seniors and 6% of the sophomores were interviewed in person; and 16% of the seniors and 19% of the sophomores were interviewed by telephone. In addition, this report includes information on the survey forms employed as well as sample design and implementation, and the data collection and data processing procedures used in the HS&B base year study and the three follow-up surveys. (Sample questionnaire and correspondence are included.) (KSA)

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High School and Beyond
Third Follow-Up (1986)
Technical Report

September 1987

Penny Sebring
Bruce Spencer
Barbara Campbell

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
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1. INTRODUCTION

The High School and Beyond (HS&B) third follow-up survey was conducted during the spring and summer of 1986. Young persons who, either as sophomores or as seniors, had participated in the base year survey in 1980 were contacted for the fourth time in 1984 and asked to complete a questionnaire detailing their activities since leaving high school.

The purpose of this report is to summarize and document the major technical aspects of the third follow-up survey. The report includes information on the survey forms employed, sample design and implementation, and data collection and data processing procedures used in the HS&B base year study and in the three follow-up surveys. Users of the various HS&B data files should consult the data file user's manuals for more detailed information about the various surveys conducted to date.

This introductory chapter presents an overview of the entire High School and Beyond survey to ensure that users of the survey data are fully aware of the interrelationships among its many components.

1.1 Overview

1.1.1 CES's Education Longitudinal Studies Program

The mission of the Center for Education Statistics (CES) includes the responsibility to "collect and disseminate statistics and other data related to education in the United States" and to "conduct and publish reports on specific analyses of the meaning and significance of such statistics" (Education Amendments of 1974, Public Law 93-380, Title V, Section 501, amending Part A of the General Education Provisions Act).

Consistent with this mandate and in response to the need for policy-relevant, time-series data on nationally representative samples of high school students, CES instituted the National Education Longitudinal Studies (NELS) program, a continuing long-term project. The general aim of the NELS program is to study longitudinally the educational, vocational, and personal development of young people, beginning with their elementary or high school years, and the personal, familial, social, institutional, and cultural factors that may affect that development.

The overall NELS program utilizes longitudinal, time-series data in two ways: each cohort is surveyed at regular intervals over a span of years, and comparable data are obtained from successive cohorts, permitting studies of trends relevant to educational and career development and societal roles. Thus far, the NELS program consists of two major studies: the National Longitudinal Study of the High School Class of 1972 (NLS-72) and High School and Beyond (HS&B). A third major study, the National Education Longitudinal Study of 1988 (NELS:88), will begin with a survey of eighth graders in 1988 and will continue with biennial follow-up surveys through the 1990s.

The first major study, NLS-72, began with the collection of comprehensive base year survey data from approximately 19,000 high

school seniors in the spring of 1972. The NLS-72 first follow-up survey added nearly 4,500 individuals in the original sample who did not participate at the time of the base year survey. Three more follow-up surveys were conducted with the full sample in 1974, 1976, and 1979, using a combination of mail surveys and personal and telephone interviews. The fifth follow-up survey, with a subsample of 14,489 individuals, took place during the spring of 1986.

The second major survey, HS&B, was designed to inform federal and state policy in the decade of the 1980s. HS&B began in the spring of 1980 with the collection of base year questionnaire and test data on over 58,000 high school seniors and sophomores. The first follow-up survey was conducted in the spring of 1982, the second follow-up in the spring of 1984, and the third follow-up in the spring of 1986.

The four survey cohorts (the NLS-72 seniors, the HS&B seniors and sophomores, and the NELS:88 eighth graders) are displayed in figure 1 according to their initial and subsequent survey years and their modal age at the time of each survey. As shown, the NLS-72 seniors were first surveyed in 1972 at age 18 and have been resurveyed four times since, with the last survey occurring in 1979 when these young adults were about 25 years of age. The HS&B cohorts have been surveyed at points in time that would permit as much comparison as possible with the time points selected for NLS-72. In particular, three types of comparison are possible.

First, the three cohorts can be compared on a time-lag basis (intercohort or intergenerational). For example, the high school seniors of 1972 and the high school seniors of 1980 and 1982 can be contrasted to determine changes over time in the distribution and needs of high school seniors and in the composition of this group.

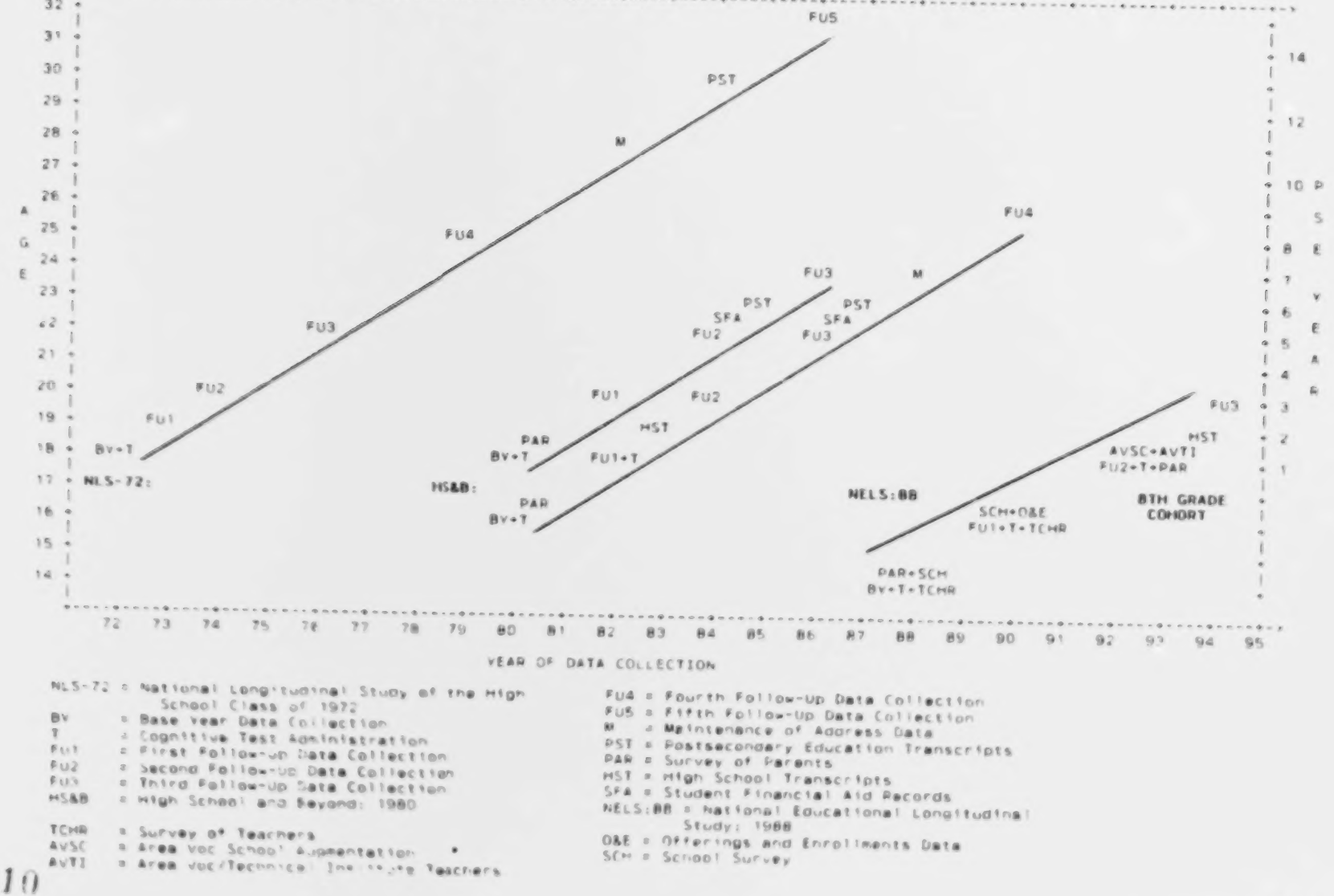
Second, fixed-time comparisons can be undertaken. For a given year, the data collection for each cohort can be viewed as a cross-sectional study. It is possible, for example, to compare employment rates in 1986 of 22-, 24- and 32-year-olds.

The cohorts can be analyzed longitudinally (diagonal lines in figure 1). In analyzing the data, it is possible to control for the effects of different life histories and thereby isolate educational effects from the effects of differential life experiences.

1.1.2 High School and Beyond and NLS-72

High School and Beyond was designed to build on the NLS-72 in three ways. First, the base year survey of HS&B included a 1980 cohort of high school seniors that was directly comparable with the 1972 cohort. Replication of selected 1972 student questionnaire items and test items made it possible to analyze changes that occurred subsequent to 1972 and their relationship to recent federal policies and programs in education. Second, the introduction of a sophomore cohort provided data on the many critical educational and vocational choices made between the sophomore and senior years in high school, permitting a fuller understanding of the secondary school experience and its impact on students. Finally, HS&B expanded the NLS-72 focus by collecting data on a range of lifecycle factors, such as family-formation behavior, intellectual development, and social participation.

Figure 1. RESEARCH DESIGN FOR NATIONAL EDUCATION LONGITUDINAL STUDIES



NLS-72 = National Longitudinal Study of the High School Class of 1972
Bv = Base Year Data Collection
T = Cognitive Test Administration
Fu1 = First Follow-up Data Collection
Fu2 = Second Follow-up Data Collection
Fu3 = Third Follow-up Data Collection
HS&B = High School and Beyond: 1980

TCHR = Survey of Teachers
AVSC = Area Voc School Augmentation
AVTI = Area Voc/Technical Institute Teachers

FU4 = Fourth Follow-Up Data Collection
FU5 = Fifth Follow-Up Data Collection
M = Maintenance of Address Data
PST = Postsecondary Education Transcripts
PAR = Survey of Parents
MST = High School Transcripts
SFA = Student Financial Aid Records
NELS:88 = National Educational Longitudinal Study: 1988
O&E = Offerings and Enrollments Data
SCH = School Survey

1.2 History of High School and Beyond

1.2.1 The Base Year Survey

The base year survey was conducted in spring 1980. The study design called for a highly stratified national probability sample of over 1,100 secondary schools as the first stage units of selection. At the second stage, 36 seniors and 36 sophomores were selected in each school (in schools with fewer than 36 students in either of these groups, all eligible students were included). Special efforts were made to identify sampled students who were twins or triplets so that their co-twins or co-triplets could be invited to participate in the study. (Data from non-sampled twins and triplets are not included in the student data files, but are available in a separate Twin Data File, which links questionnaire data from the base year and first follow-ups for sampled and non-sampled twins for special analyses.) Over 30,000 sophomores and 28,000 seniors enrolled in 1,015 public and private high schools across the country participated in the base year survey. (Detailed information about the samples can be found in the HS&B sample design report for the base year: Martin R. Frankel, Luane Kohnke, David Buonanno, and Roger Tourangeau, Sample Design Report, Center for Education Statistics, 1981).

Certain types of schools were oversampled to make the study more useful for policy analyses. These included:

- Public schools with high percentages of Hispanic students to ensure sufficient numbers of Cuban, Puerto Rican, and Mexican students for separate analyses
- Catholic schools with high percentages of minority group students
- Alternative public schools
- Private schools with high-achieving students

The Hispanic supplement to the sample was funded jointly by the Office of Bilingual Education and Minority Language Affairs (OBEMLA) and the Office for Civil Rights (OCR) within the Department of Education. An additional supplementary sample was drawn from students attending Department of Defense Dependents Schools (DoDDS) located overseas. DoDDS students are not included in the data tapes distributed by CES, however.

Survey instruments in the base year included:

- A sophomore questionnaire
- A senior questionnaire
- Student identification pages

- A series of cognitive tests for each cohort
- A school questionnaire
- A teacher comment checklist
- A parent questionnaire (mailed to a sample of parents from both cohorts)

The student questionnaires focused on individual and family background, high school experiences, work experiences, and plans for the future. The student identification pages included information that would be useful in locating the students for future follow-up surveys, as well as a series of items on the student's use of, proficiency in, and educational experiences with languages other than English. The cognitive tests measured verbal and quantitative abilities in both cohorts. In addition, the sophomore test battery included achievement measures in science, writing, and civics, while seniors were asked to respond to tests measuring abstract and nonverbal abilities. Of the 194 test items administered to the HS&B senior cohort in the base year, 86 percent were identical to items that had been given to the NLS-72 base year respondents.

School questionnaires, which were filled out by an official in each participating school, provided information about enrollment, staff, educational programs, facilities and services, dropout rates, and special programs for handicapped and disadvantaged students. The teacher comment checklist provided teacher observations on students participating in the survey. The parent questionnaire elicited information about how family attitudes and financial planning affected postsecondary educational goals.

1.2.2 The First Follow-Up Survey

The first follow-up sample consisted of approximately 30,000 1980 sophomores and 11,995 1980 seniors. It retained the multi-stage, stratified, and clustered design of the base year sample. All students who had been selected for inclusion in the base year survey, whether or not they actually participated, had a chance of being included in the first follow-up survey. Unequal probabilities were compensated by weighting. NORC attempted to survey all 1980 sophomores (including base year nonrespondents) who were still enrolled in their original base year schools. Certain categories of 1980 sophomores no longer enrolled in their original schools were subsampled (see chapter 3) and certain categories were sampled with certainty.

The first follow-up survey also included all non-sampled co-twins (and triplets) who had been identified and surveyed during the base year, provided that the sampled twin or triplet was retained for the follow-up. However, non-sampled twins and triplets were not included in the probability sample and were not weighted. Their data appear only on a separate Twin Data File. As in the base year survey, there was a Hispanic supplement in the first follow-up survey, again supported by OBEMLA and OCR.

A first follow-up school questionnaire was requested of all schools selected in the base year (including those schools that had refused to participate), with three exceptions: schools that had no 1980 sophomores, schools that had closed, and schools that had merged with other schools in the sample. Schools not in the base year sample that had received en masse transfers of students from base year schools were contacted to complete a first follow-up school questionnaire and to arrange student survey activities. These schools are not considered to be part of the probability sample of secondary schools and were not given weights. However, survey data from these schools are included in the first follow-up School Data File, and are available for merging with first follow-up student data.

The first follow-up survey included a sample of students from the Department of Defense Dependents Schools (DoDDS). All DoDDs base year participants currently living overseas were included in the DoDDs follow-up sample. However, sophomore cohort base year participants living in the U.S. were not contacted for the first follow-up DoDDs survey. DoDDs students were not part of the main probability sample and were not weighted.

For the senior cohort, a self-administered mail-back questionnaire was the basic method of data collection. Approximately 12,200 packets containing survey questionnaires, instruction sheets, and incentive payment checks were sent to sample members during the first week of February 1982. Postcards with dual messages seeking a quick reply from nonrespondents and thanking early respondents for their cooperation were mailed during the third week following the initial mailout. Two weeks later, those who still had not responded were called by trained telephone interviewers. Approximately 75 percent of the targeted senior cohort members completed and returned first follow-up questionnaires by mail. An additional 19 percent completed the questionnaires through either in-person or telephone interviews. (A variable indicating the method of survey administration, FEMETHD, is included on the file for the first follow-up survey.) Respondents who completed the questionnaire by telephone interview were required to have a copy of the questionnaire in front of them while doing so. This procedure was followed to keep the survey experience of the respondents as similar as possible to that of the majority of respondents, who filled out the questionnaires themselves. Follow-up interviewing was halted in mid-July of 1982, after a response rate of 94 percent had been obtained.

For the sophomore cohort, first follow-up data were collected through group administrations of questionnaires and tests. The sophomore group administrations were conducted in either the sampled students' high school or an appropriate location off-campus. The location of the administration depended on the survey member's school enrollment status during the data collection period (February through May 1982). Group administrations were scheduled off-campus for sample members who were no longer attending the sampled schools. These individuals (e.g., transfer students, dropouts, early graduates) were contacted by NORC Survey Representatives and brought together in small groups of two to six participants. The same survey administration procedures were followed for both types of group administration.

1.2.3 The Second Follow-Up Survey

The second follow-up survey was conducted during the spring and summer of 1984. Probability samples of approximately 15,000 1980 sophomores and 12,200 1980 seniors were retained for the second follow-up. The sample for the elder cohort was unchanged from that used for the first follow-up survey. The sample for the younger cohort was selected from among the 18,500 cases selected in 1982 for the High School Transcripts study (see section 1.3.3). The sample design for the younger cohort was modelled after that used for the first and subsequent follow-ups of the elder cohort, in that subgroups of special relevance to education policy formation (high school dropouts, members of racial and ethnic minorities, those with data from the base year Parents Survey, those enrolled in postsecondary educational institutions, and so forth) were retained in the second follow-up with substantially higher probabilities than others. However, all individuals selected for the base year survey had a non-zero chance of retention in the second follow-up regardless of their participation in the base year or first follow-up surveys. (Further information about the sample design may be found in chapter 3, below).

As in prior survey rounds, the Office of Bilingual Education and Minority Language Affairs provided additional support for the Hispanic Supplement to High School and Beyond in order to increase the size of the Hispanic sample for special analyses.

For both cohorts, a self-administered mail-back questionnaire was the basic method of data collection. Packets containing survey questionnaires, instruction sheets, and incentive payment checks were sent to sample members during the first week of February 1984. Two weeks later, postcards thanking respondents for their cooperation and requesting the cooperation of nonrespondents were mailed to all sample members. Two weeks after the cards were sent, trained telephone interviewers called those who had still not responded and urged them to do so. When this failed, interviews were conducted by telephone or in person. Survey design required that respondents interviewed over the telephone and those interviewed in person have a copy of the questionnaire in front of them, to minimize bias due to the method of administration.

1.2.4 The Third Follow-Up Survey

The senior and sophomore cohort samples for the third follow-up survey were the same as those used for the first and second follow-ups. Again, survey activities were initiated for all sample members--except for 38 persons who were known to be deceased. (The non-sampled twins and triplets, however, were not surveyed during this wave).

As in the second follow-up survey, mail-back questionnaires were the basic method of data collection. During the last week of February 1986, approximately 26,800 packets of survey materials were mailed to the last known addresses of the sample members. Three weeks later, respondents who had not returned their questionnaires were sent

a postcard reminder. Two weeks after the cards were sent, trained telephone interviewers called those who had still not responded and urged them to do so. When this failed, interviews were conducted by telephone or in person. Approximately 66 percent of both samples mailed back their completed questionnaires; 5 percent of the seniors and 6 percent of the sophomores were interviewed in person; and about 16 percent of the seniors and 19 percent of the sophomores were interviewed by telephone. The survey design again required that respondents who were to be interviewed over the telephone or in person have a copy of the questionnaire before them during the interview to minimize bias due to method of administration. Follow-up interviewing continued into September and resulted in a completion rate of 88 percent for the seniors and 91 percent for the sophomores.

1.3 Related Studies and Data Files

In addition to the core surveys described above, records studies have been undertaken, including the collection of the high school transcripts of the sophomore cohort and the collection of postsecondary education transcripts and financial aid data for the seniors. Data files for these studies and other HS&B data, such as parent surveys, school surveys, teacher comments, and the like, are described below. User's manuals or other forms of documentation are available from CES for all data files. These auxiliary data files greatly expand the analytic capabilities of the core data sets, and researchers are encouraged to become familiar with them.

1.3.1 Base Year Files

The Language File contains information on each student who during the base year reported some non-English language experience, either during childhood or at the time of the survey. This file contains 11,303 records (sophomores and seniors combined), with 42 variables for each student.

The Parent File contains questionnaire responses from the parents of about 3,600 sophomores and 3,600 seniors who are on the Student File. Each record on the Parent File contains a total of 307 variables. Data on this file include parents' aspirations and plans for their children's postsecondary education.

The Twin and Sibling File contains base year responses from sampled twins and triplets; data on non-sampled twins and triplets of sample members; and data from siblings in the sample. This file (2,718 records) includes all of the variables that are on the HS&B student file, plus two additional variables (family ID and SETTYPE--type of twin or sibling).

The Sophomore Teacher File contains responses from 14,103 teachers on 18,291 students from 616 schools. The Senior Teacher File contains responses from 13,683 teachers on 17,056 students from 611 schools. At each grade level, teachers had the opportunity to answer questions about HS&B-sampled students who had been in their classes. The typical student in the sample was rated by an average of four different teachers. Preliminary analyses by CES indicate that the

files contain approximately 76,000 teacher observations of sophomores and about 67,000 teacher observations of seniors.

The Friends' File contains identification numbers of students in the HS&B sample who were named as friends of other HS&B-sampled students. Each record contains the ID of sampled students and IDs of up to three friends. Linkages among friends can be used to investigate the sociometry of friendship structures, including reciprocity of choices among students in the sample, and to trace friendship networks.

1.3.2 Merged Base Year and First and Second Follow-Up Files

The First Follow-Up Sophomore File contains responses from 29,737 students and includes both base year and first follow-up data. This file includes information on school, family, work experiences, educational and occupational aspirations, personal values, and test scores of sample participants. Students are also classified as to high school status as of 1982 (i.e., dropout, same school, transfer, or early graduate).

The First Follow-Up Senior File contains responses from 11,995 individuals and includes both base year and first follow-up data. This file includes information from respondents concerning their high school and postsecondary experiences and their work experiences.

The Second Follow-Up Sophomore File has all base year, first follow-up, and second follow-up data for 14,825 members of the sophomore cohort. Data cover work experience, postsecondary schooling, earnings, periods of unemployment, and so forth, for the sophomore cohort, who by this time had been out of high school for two years.

The Second Follow-Up Senior File encompasses all base year, first follow-up, and second follow-up data for the 11,995 individuals who constitute this follow-up sample. Data cover work experience, postsecondary schooling, earnings, periods of unemployment, and so forth, for the senior cohort, who by this time had been out of high school for four years.

1.3.3 Other HS&B Files

The High School Transcript File describes the course taking behavior of 15,941 sophomores of 1980 throughout their four years of high school. Data include a six-digit course number[1] for each course taken, along with course credit, course grade, and year taken. Other items of information, such as grade point average, days absent, and standardized test scores, are also contained on the file.

The Offerings and Enrollments File contains school information, course offerings, and enrollment data for 957 schools. Each course offered by a school is identified by a six-digit course number. Other information, such as credit offered by the school, is also contained on each record.

The Updated School File contains base year data (966 completed questionnaires) and first follow-up data (956 completed questionnaires) from the 1,015 participating schools in the HS&B

sample. First follow-up data were requested only from those schools that were still in existence in the spring of 1982 and had members of the 1980 sophomore cohort currently enrolled. Each high school is represented by a single record that includes 230 data elements from the base year school questionnaire, if available, along with other information from sampling files (e.g., stratum codes, case weights).

The Postsecondary Education Transcript File for the HS&B seniors contains transcript data on dates of attendance, fields of study, degrees earned, and the titles, grades, and credits of every course attempted at each school attended, coded into hierarchical files with the student as the highest level of aggregation. Although no survey forms were used, detailed procedures were developed for extracting and processing information from the postsecondary school transcripts that were collected for all members of the 1980 senior cohort who reported attending any form of postsecondary schooling in the first or second follow-up surveys. (Over 7,000 individuals reported over 11,000 instances of school attendance.)

The Senior Financial Aid File contains financial aid records from postsecondary institutions that respondents reported attending, and federal records of the student's participation in the Guaranteed Student Loan Program and of the Pell Grant program.

The HS&B HEGIS and PSVD File contains the postsecondary school codes for schools HS&B respondents reported attending in the first and second follow-ups. In addition, the file provides data on institutional characteristics, such as type of institution, highest degree offered, enrollment, admissions requirements, tuition, and so forth. This file permits analysts to link HS&B questionnaire data with institutional data for postsecondary schools attended by respondents.

1.3.4 NLS-72 Files

The NLS-72 Base Year Through Fourth Follow-Up (1979) File contains data from the base year through fourth follow-up for over 23,000 respondents. Data include school experiences and test results during the base year and subsequent activities related to work, postsecondary schooling, military service, family formation, and goals and aspirations.

The NLS-72 Fifth Follow-Up File consists of the results of the fifth follow-up survey, carried out in 1986, when sample members were about 32 years old. Data include work experience going back to 1979, postsecondary schooling, extensive family formation history, periods of unemployment, goals and aspirations, and selected attitudes. Records in this file can be linked through student ID to those in the NLS-72 Base Year Through Fourth Follow-Up (1979).

The NLS-72 Teacher Supplement File contains the responses of the portion of the fifth follow-up NLS-72 sample who had obtained teacher certification and/or had teaching experience. Data include certification history, subjects taught, years of experience, attitudes toward teaching as a career, and subsequent work experiences of those who had left teaching. These data can be linked through the respondent ID to the NLS-72 Fifth Follow-Up File and to the NLS-72 Base Year through Fourth Follow-Up File.

The Postsecondary Education Transcript Study of the NLS-72 Sample contains transcript data on dates of attendance, fields of study, degrees earned, and the titles, grades, and credits of every course attempted at each school attended, coded into hierarchical files with the student as the highest level of aggregation. Although no survey forms were used, detailed procedures were developed for extracting and processing information from the postsecondary school transcripts that were collected in 1984 for all members of the NLS-72 cohort who reported attending any form of postsecondary schooling in any of the first through fourth follow-up surveys. (Over 14,000 individuals reported over 24,000 instances of school attendance).

NOTES

[1]Corresponds with descriptions in A Classification of Secondary School Courses (CSSC), developed by Evaluation Technologies, Inc., under contract with CES, July 1982.

2. DATA COLLECTION INSTRUMENTS

Information on both cohorts has come primarily from questionnaires filled out by students, school administrators, teachers, and parents of students, supplemented by information on courses taught at sampled schools and the number of students enrolled in those courses. In addition, information from students' high school transcripts has been collected for the younger cohort, and information from students' postsecondary education transcripts and from financial aid records has been collected for the elder cohort. (Postsecondary education transcripts and financial aid data are currently being collected for the sophomore cohort.) The survey instruments given to school officials, teachers, and parents, as well as the protocols and procedures governing the transmittal of information on course offerings and student transcripts, are described in the user's manuals for each of those data files. Features of the student questionnaires used in the first four waves of High School and Beyond are described below. The third follow-up questionnaire is reproduced in appendix A.

2.1 Base Year (1980) Survey

The base year senior and sophomore questionnaires were very similar, with approximately three-fourths of the items in each version common to both. Most of the items in both questionnaires focused on students' behavior and experiences in the secondary school setting. Also included were questions about employment outside the school, postsecondary educational and occupational aspirations, and personal and family background, and a small number of questions about personal attitudes and beliefs. In addition, to facilitate the recontacting of students in later follow-up surveys, students were asked to provide complete addresses and telephone numbers for themselves and for some other person who would always know their whereabouts.

The cognitive tests for the senior cohort were designed to overlap to a great degree both with the sophomore tests and with the tests used for the NLS-72 cohort. The senior tests included the following:

Vocabulary (27 items, 9 minutes): Used a synonym format.

Reading (20 items, 15 minutes): Consisted of short passages (100-200 words) followed by comprehension questions and a few analysis and interpretation items.

Mathematics (33 items, 19 minutes): Students were asked to determine which of two quantities was greater, whether they were equal, or whether there was insufficient data to answer the question.

Picture Number (15 items, 5 minutes): A test of associative memory consisting of a series of drawings of familiar objects each paired with a number. The students, after studying the

picture-number pairs, were asked to recall the number associated with each object.

Mosaic Comparisons (89 items, 6 minutes): Measured perceptual speed and accuracy. Items required that small differences be detected between pairs of otherwise identical mosaic patterns.

Visualization in Three Dimensions (16 items, 9 minutes): Students were asked to visualize the shape that a flat piece of metal (represented by a line drawing) would assume if folded along specified lines, and to select this three-dimensional shape from a group of possible answers.

Questions about the test (5 minutes): Students were asked how they felt about taking the test, and how important they thought the various abilities it measured would be to them later in life.

Sophomores also completed a battery of cognitive tests that are described briefly below:

Vocabulary (21 items, 7 minutes): Used a synonym format.

Reading (20 items, 15 minutes): Consisted of short passages (100-200 words) followed by comprehension questions and a few analysis and interpretation items.

Mathematics (38 items, 21 minutes): Students were asked to determine which of two quantities was greater, whether they were equal, or whether there was insufficient data to answer the question.

Science (20 items, 10 minutes): Based on science knowledge and scientific reasoning ability.

Writing (17 items, 10 minutes): Based on writing ability and knowledge of basic grammar.

Civics Education (10 questions, 5 minutes): Based on various principles of law, government, and social behavior.

2.2 First Follow-Up (1982) Survey

2.2.1 1980 Senior Cohort First Follow-Up Questionnaire

Most of the items in the senior cohort first follow-up questionnaire can be traced to the base year senior questionnaire or to the NLS-72 fourth follow-up questionnaire. Content areas in the senior questionnaire included education (amount and type of postsecondary schooling completed, data on schools attended, school financing, educational expectations and aspirations, and non-school-based

postsecondary training), work (labor force participation, detailed job histories, aspirations, military service), financial status (dependency, income), marital status (spouse's occupation, education, dependents), and demographics (household composition, race, sex, ethnicity, and so forth). Questions on employment and schooling were constructed and arranged in an "event history" format in order to provide information suitable for analyses using advanced techniques for determining parameters of transition models.

Approximately 30 items in the instrument were identified as "critical" or "key" questions. Respondents who failed to answer these items were telephoned and asked to supply the missing information.

2.2.2 1980 Sophomore Cohort First Follow-Up Questionnaire

The purpose of the sophomore cohort first follow-up questionnaire was to document secondary school experiences, especially shifts in attitudes and values since the base year, and to document work experiences and plans for postsecondary education. Almost all of the first follow-up questions had been asked in the base year; most were from the sophomore document, but many had appeared in the senior questionnaire only. Content areas included: education (high school program, courses taken, grades, standardized tests taken, attendance and disciplinary behavior, parental involvement, extracurricular and leisure activities, assessment of quality of school and teachers), postsecondary education (goals, expectations, plans, and financing), work/labor force participation (occupational goals, attitudes toward military service), demographics (parents' education, father's occupation, family composition, school age siblings, family income, marital status, race, ethnicity, sex, birthdate, physical handicaps), and values (attitudes toward life goals, feelings about self, and so forth).

Approximately 30 items in the sophomore questionnaire were identified as "critical" or "key" questions, for which data were to be retrieved.

2.2.2.1 1980 Sophomore Cohort (Not Currently in High School) First Follow-Up Questionnaire

This questionnaire was designed for persons who had dropped out of high school. It focused on the reasons for dropping out and its impact on students' educational and career development. About a dozen of the items were developed especially for students who left school before completion; the remainder of the questionnaire was made up of items used either in the regular 1980 sophomore cohort questionnaire or the 1980 senior cohort instrument. Content areas included: circumstances of leaving school (reasons for leaving, evaluation of decision, plans for obtaining high school diploma or equivalent), participation in training programs and other postsecondary education, work (labor force participation, detailed job history, aspirations, Armed Forces service), financial status (dependency, income), marital status (spouse's education, occupation, dependents), demographics (parents' education, father's occupation, race, sex, ethnicity, date of

birth), and other personal characteristics (physical handicaps, values, feelings about self).

2.2.2.2 Transfer Supplement

The Transfer Supplement was completed by members of the sophomore cohort who had transferred out of their base year sample high school to another high school (these students also completed the core questionnaire.) All of the items in the Transfer Supplement were new items (except for a few that were taken from the school questionnaire). Content areas included: reasons for transferring and for selecting a particular school, identification of school, location, grade respondent was in at time of transfer, entrance requirements, length of interruption in schooling (if any) and reason, type of school (general, specialized), size of student body, and grades. The supplement was brief, taking about 10 minutes to complete.

2.2.2.3 Early Graduate Supplement

The Early Graduate Supplement was developed for members of the sophomore cohort who graduated from high school ahead of schedule. It documented reasons for and circumstances of early graduation, the adjustments required to finish early, and respondents' activities compared with those of other out-of-school survey members (i.e., dropouts, 1980 seniors.) Content areas included: reasons for graduating early, when decision was made (what grade), persons involved in the decision, course adjustments required, school requirements, and postsecondary education and work experience (the questions for the last area were identical to those in the senior cohort instrument). This supplement was completed in addition to the core questionnaire, and respondents finished it in about 10 to 15 minutes.

2.2.2.4 First Follow-Up Tests

The sophomore cohort completed the same tests as in the base year. For the early graduates, transfer students, and dropouts, group administration sessions were held so that they could complete questionnaires and tests as well. Where this was not possible, NORC mailed only the questionnaire to respondents.

2.3 Second Follow-Up (1984) Survey

2.3.1 1980 Senior Cohort Second Follow-Up Questionnaire

The second follow-up senior questionnaire contained many of the same items that were used in the first follow-up survey. Respondents were asked to update background information and to provide information about postsecondary education, work experience, military service, family information, income, and life goals. Event history formats were used for obtaining responses about jobs held, schools attended, and periods of unemployment. New items included a limited series on computer literacy (e.g., use of computers and software,

knowledge of computer languages), detailed information on financial assistance received from parents for pursuing postsecondary education (including measures of the components of student "independence/dependence" as defined in federal regulations in force at the time), education and training obtained outside of regular school, college, or military programs (on-the-job and other employer provided training), and periods of unemployment.

About 35 items in the second follow-up questionnaire were designated as "critical questions" for editing purposes. Respondents who omitted these items or who provided inconsistent data were called by telephone to obtain the missing data or to resolve inconsistencies.

2.3.2 1980 Sophomore Cohort Second Follow-Up Questionnaire

The second follow-up sophomore questionnaire included 71 questions clustered around nine major sections: background information, education, other training, military experience, work experience, periods unemployed, family information, income, and experiences and opinions. As could be expected, the information gathered differs substantially from that collected for the first follow-up. By this time, the majority of respondents were out of high school and enrolled in postsecondary school, working, or looking for work.

The questionnaire asked for detailed information on schools attended after high school--for up to three schools. Respondents indicated the kind of school attended; hours per week spent in class; the degree, certificate or diploma being sought; and requirements completed. Financial information included questions on tuition and fees and scholarships. Data were gathered also on financial aid from parents to the respondent and to any siblings.

The survey also obtained a work history, including occupation, industry, gross starting salary, gross income, hours worked per week, length of time without a job, length of time looking for work, job training and job satisfaction. Family information covered the spouse's occupation and education, date of marriage(s), number of children, and income and benefits received by both the respondent and spouse.

There were 36 questionnaire items designated as critical. Respondents who omitted these items or who provided inconsistent data were telephoned to obtain the missing data or to resolve the inconsistencies.

2.4 Third Follow-Up (1986) Survey

For the third follow-up survey, the senior and sophomore cohorts both received the same questionnaire. To maintain comparability with prior waves, many questions from previous follow-up surveys were repeated. Respondents were asked to update background information and to provide information about their work experience, unemployment history, education and other training, family formation, income, and other experiences and opinions. Event history formats were used for obtaining responses about jobs held, schools attended, periods of unemployment, and marriage patterns. A few new items were added on

interest in graduate degree programs and on alcohol consumption habits.

There were 37 items in the third follow-up survey that were designated as "critical questions" for editing purposes (see appendix A). Respondents were telephoned in order to obtain missing data or to resolve inconsistencies.

3. SAMPLE DESIGN AND IMPLEMENTATION

3.1 Base Year Survey Sample Design[1]

In the base year, students were selected through a two-stage, stratified probability sample with schools as the first-stage units and students within schools as the second-stage units. With the exception of certain special strata, which were oversampled, schools were selected with probabilities proportional to the estimated enrollment in their tenth and twelfth grades. Within each school, 36 seniors and 36 sophomores were randomly selected. In those schools with fewer than 36 seniors or 36 sophomores, all eligible students were drawn in the sample. Sampling rates for each stratum were set so as to select in each stratum the number of schools needed to satisfy study design criteria regarding minimum sample sizes for certain types of schools. As a result, some schools had a very high probability of inclusion in the sample (in some cases, equal to 1.0), while others had a very low probability of inclusion. The total number of schools selected for the sample was 1,122, from a frame of 24,725 schools with grades 10 or 12 or both.[2] Sampling strata and the number of schools selected in each are shown in table 3.1-1.

Substitution was carried out for schools that refused to participate in the survey, but there was no substitution for students who refused, whose parents refused, or who were absent on Survey Day and make-up days.[3] Substitution for refusal schools occurred only within strata. In certain cases no substitution was possible because all schools within the stratum were initially selected for participation. The realization of the sample by stratum is shown in table 3.1-2.

Table 3.1-1

High School and Beyond Base Year School Sample Selections

	Number
Special Strata (oversampled)	
Alternative public	50
Cuban public	20*
Cuban Catholic	10*
Other Hispanic public	106*
High performance private	12
Other non-Catholic private (stratified by four census regions)	38
Black Catholic	30*
Regular Strata (not oversampled)	
Regular Catholic (stratified by four census regions)	48
Regular public (stratified by nine census divisions; racial composition; enrollment; central-city, suburban, rural)	808
	1,122

*These schools were defined as those having 30 percent or more of enrollment from the indicated subgroup.

Table 3.1-2

High School and Beyond Base Year Sample Realization

Stage 1: Sampling of Schools

Stratum	Drawn in sample	Original schools*	Substituted schools	Total realized
Regular public	808	585	150	735
Alternative public	50	41	4	45
Cuban public	20	11	0	11
Other Hispanic public	106	72	30	102
Regular Catholic	48	40	5	45
Black Catholic	30	23	7	30
Cuban Catholic	10	7	2	9
High performance private	12	9	2	11
Other non-Catholic private	38	23	4	27
TOTAL	1,122	811	204	1,015

Stage 2: Sampling of Students

	Total drawn in sample	Absent, both Survey and Make-up Days	Student refused	Parent refused	Partial materials missing**	Total realized
Number	70,704	8,278	1,759	223	2,174	58,270
Percent	100	12	3	-	3	82

*Includes additional selections made when schools were found to be out-of-scope.

**Unusable because critical survey materials missing.

3.2 First Follow-Up Survey Sample Design

All 1980 senior cohort students selected for the base year sample had a known, non-zero chance of being selected for the first and all subsequent follow-up surveys. The first follow-up sample consisted of 11,995 selections from the base year probability sample. This total includes 11,500 selections from among the 28,240 base year participants and 495 selections from among the 6,741 base year nonparticipants. In addition, 204 non-sampled co-twins or triplets (not part of the probability sample) were included in the first follow-up sample, resulting in a total of 12,199 selections. The sample design retained the essential features of a stratified multi-stage design; for further details, see Tourangeau, et al., 1983.[4]

Most of the sophomore cohort students selected for the base-year sample were retained in the first follow-up survey. Students (1980 sophomores) still enrolled in their original base year schools were retained with certainty, and the remaining sophomores were subsampled with various rates. In all, the sample numbered 29,737. Like the design for the senior cohort, the sophomore cohort first follow-up was a stratified multi-stage design.

3.3 High School Transcripts Sample Design (1980 Sophomore Cohort)

Subsequent to the first follow-up survey, high school transcripts were sought for a probability subsample of nearly 18,500 members of the 1980 sophomore cohort. The subsampling plan for the Transcript Study emphasized the retention of members of subgroups of special relevance for education policy analysis. Compared to the base year and first follow-up surveys, the Transcript Study sample design further increased the overrepresentation of racial and ethnic minorities (especially those with above average HS&B achievement test scores), students who attended private high schools, school dropouts, transfers and early graduates, and students whose parents participated in the base year Parents' Survey on financing postsecondary education.

3.4 Second and Third Follow-Up Survey Sample Design

The members of the senior cohort selected into the second follow-up sample consisted exactly of those who were selected into the first follow-up.

The sample for the second follow-up survey of the 1980 sophomore cohort was based upon the transcripts study design. A total of 14,825 cases were selected from among the 18,500 retained for the transcript study. As was the case for the elder cohort, the younger cohort second follow-up sample included disproportionate numbers of sample members from policy-relevant subpopulations (e.g., racial and ethnic minorities, students from private high schools, high school dropouts, students who planned to pursue some type of postsecondary schooling, and so on). Sample weights have been provided to compensate for differential selection probabilities and participation rates across all survey waves.

For both the elder and the younger cohorts, the third follow-up survey sample was the same as the second follow-up survey sample. Since the third follow-up survey sample of the elder cohort was the same as the first (and second) follow-up survey sample, and the third follow-up survey sample of the younger cohort was the same as the second follow-up survey sample, descriptions of the compositions of the third follow-up survey samples of both cohorts may be found in earlier reports[3].

3.5 Sample Weights

3.5.1 General Approach to Weighting

The general purpose of weighting is to compensate for unequal probabilities of selection (retention) for the base year and the follow-up surveys and to adjust for the fact that not all individuals selected for participation in the surveys actually participated. The weights are based on the inverse of the selection probabilities through all stages of the sample selection process and on nonresponse adjustment factors computed within weighting cells. In this report, weights are described separately for three subgroups of respondents from each cohort of the HS&B sample: all third follow-up participants; third follow-up respondents who also participated in the base year survey; and third follow-up respondents who also participated in the base year and first and second follow-up surveys. In addition to these various sets of weights, a raw weight, unadjusted for nonresponse in any of the surveys, was calculated and included on the data file for each cohort. The raw weight provides the basis for analysts to construct additional weights, adjusted for the presence of virtually any combination of data elements.

Several different weights have been calculated to adjust for the fact that not all sample members have data for all instruments in all survey waves. Table 3.5.1-1 describes four of the weights calculated for both the senior and sophomore cohorts. The senior cohort weights project to the population of approximately 3,040,000 high school seniors in 1980. Similarly, the sophomore cohort weights project to the population of 3,781,000 high school sophomores in 1980.

Table 3.5.1-1

Sample Case Weights, Third Follow-Up Survey

Weight	Applies to cases with:	Unweighted number of cases having these weights: 1980 seniors	1980 sophomores
FU3WT	Third follow-up questionnaire data	10,583	13,481
PANELWT4	Base year, first follow-up, second follow-up, and third follow-up questionnaire data	9,389	11,708
TESTWT3	Third follow-up questionnaire data and high school test data	9,149	13,205
RAWWT	All third follow-up selections	11,995	14,825

Note: TESTWT3 was constructed only for cases for whom sufficient test data were available to construct a meaningful composite score (TEST). The counts in Table 3.5.1-1 include deceased persons, who have been given a weight in order to keep the population totals consistent with those of the base year survey.

3.5.2 Weighting Procedures

The weighting procedures consisted of two basic steps. The first step is the calculation of a preliminary follow-up weight based on the inverse of the cumulative probabilities of selection for the base year sample and up through the third follow-up survey. The second step carries out the adjustment of this preliminary weight to compensate for "unit" nonresponse--that is, for non-completion of an entire questionnaire or some combination of survey instruments. (No adjustments are made to the raw weights, which are, by definition, unadjusted for nonresponse.) These steps are described in more detail below.

Step 1: Calculation of raw weights. The first step in weighting the sample was to develop raw weights based on the inverse of the probability of selection (retention) for the various follow-ups. For HS&B selections, the raw weights are identical to the raw weights for the second follow-up sample[6], because all cases selected for the second follow-up were retained in the third follow-up sample and no new cases were selected.

Step 2: Nonresponse adjustment. In this step, the raw weights obtained in step 1 were multiplied by nonresponse ratio adjustment factors. Different factors were used to develop FU3WT, PANELWT4, and TESTWT3, but the approach is similar for each weight. Cases were distributed among weighting cells. Within each weighting cell two sums of raw weights were computed: the first for all cases in the cell selected for the survey wave or combination of waves (selections); the second for all cases in the cell for whom the specified combination of questionnaire and/or test data was collected (participants). The ratio of the two sums (selections over participants) provided a factor used to expand the preliminary weight of each participant to compensate for the missing weights of those who were selected but did not participate. The raw weights of nonparticipants were multiplied by an adjustment factor of zero to produce final weights of zero for these cases. In the third follow-up study, deceased students were treated as participants for non-response adjustments. This was done to permit analysis of prior survey data, and allow the weights to be reflective of the base year population. Thus, the nonresponse adjustment consists of distributing the preliminary weights of the nonparticipants proportionately among the participants in each weighting cell.

The weighting cells were defined by cross-classifying cases by several variables. For the sophomore cohort third follow-up weight (FU3WT), the cells were defined by:

(1) Dropout status
    (1) non-dropout
    (2) dropout

(2) School type (for non-dropouts only)
    (1) regular public and alternative
    (2) Hispanic public
    (3) Catholic
    (4) private non-Catholic

(3) Sex
    (1) male
    (2) female

(4) Race
    (1) Hispanic
    (2) non-Hispanic Black
    (3) non-Hispanic White and other

(5) Base year test quartile

for non-dropouts:	for dropouts:
(0) no test data available	(0) no test data available
(1) lowest quartile	(1) below median
(2) second quartile	(2) above median
(3) third quartile	
(4) highest quartile	

In some instances, cells were combined by pooling cases across base year test quartile classifications or type of high school attended.

For the senior cohort third follow-up weight (FU3WT), the cells were defined by:

(1) Base year participation
    (1) Non-participant
    (2) Participant

(2) School type
    (1) Regular public and alternative
    (2) Hispanic public
    (3) Catholic
    (4) Private non-Catholic

(3) Sex (for base year participants only)
    (1) male
    (2) female

(4) Race (for base year participants only)
    (1) Hispanic
    (2) non-Hispanic Black
    (3) non-Hispanic White and other

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(5) Base year test quartile (for base year participants only)
- (0) no test data available
- (1) lowest quartile
- (2) second quartile
- (3) third quartile
- (4) highest quartile

In some instances, cells were combined by pooling cases across base year test quartile classifications or type of high school attended.

For the senior cohort panel weight (PANELWT4), the cells were defined as above except that neither base year participation nor base year test quartile were used. For senior cohort weight TESTWT3, the cells were defined as for PANELWT4, except that sex was ignored for cases who attended private schools.

3.6 Results of Weighting

As a check on the adequacy of the sample case weights, NORC analyzed the statistical properties of the weights and the effects of various weights on the composition of the survey samples. Tables 3.6-1 and 3.6-2 show the mean, variance, standard deviation, coefficient of variation, minimum, maximum, skewness, and kurtosis for each of the weights calculated for the third follow-up survey.

Table 3.6-1
Statistical Properties of Sample Weights:
1980 Sophomore Cohort

Weight	RAWWT	FU3WT	PANELWT4	TSTWT3
Mean	255.0	280.5	322.9	286.3
Variance	57,703	70,989	78,940	73,039
Standard deviation	240.2	266.4	281.9	270.3
Coefficient of variation	0.942	0.950	0.870	0.944
Minimum	1.45	1.62	1.80	1.74
Maximum	3,098	3,350	3,969.7	3,446.3
Skewness	2.38	2.66	1.97	2.71
Kurtosis	11.9	14.5	10.5	15.6
Number of cases	14,825	13,481	11,708	13,205

Table 3.6-2
Statistical Properties of Sample Weights:
1980 Senior Cohort

Weight	RAWWT	FU3WT	PANELWT4	TSTWT3
Mean	253.4	287.2	323.8	332.245
Variance	69,496	91,909	104,471	11,632
Standard Deviation	263.6	303.2	323.2	334.1
Coeffiecient of Variation	1.040	1.055	0.998	1.006
Minimum	1.09	1.14	1.57	1.669
Maximum	1,080.8	1,548.8	1,045.5	1,081.9
Skewness	1.02	1.22	0.09	0.94
Kurtosis	-0.40	0.60	-1.02	-0.92
Number of Cases	11,995	10,583	9,389	9,149

3.7 Nonresponse Analyses

3.7.1 General Considerations

Nonresponse inevitably introduces some degree of error into survey results. In examining the impact of nonresponse, it is useful to think of the survey population as including two strata--a respondent stratum that consists of all units that would have provided data had they been selected for the survey, and a nonrespondent stratum that consists of all units that would have been survey nonrespondents. The actual sample of respondents necessarily consists entirely of units from the respondent stratum. Thus, sample statistics can serve as unbiased estimates only for the respondent stratum; as estimates for the entire population, the sample statistics will be biased to the extent that the characteristics of the respondents differ from those of the entire population[7]. The bias may be expressed as:

$$\text{Bias} = Y_R - Y \qquad (1)$$

in which

Y_R = a parameter (e.g., a mean) characterizing the population of respondents

Y = the corresponding parameter characterizing the entire population.

For many simple parameters such as means and proportions, the population parameter (Y) is a weighted average of the stratum parameters (Y_R and Y_{NR}):

$$Y = P(Y_{NR}) + (1 - P)Y_R, \qquad (2)$$

with

P = the proportion of the population in the nonrespondent stratum.

It is evident from equations (1) and (2) that the nonresponse bias for an estimated mean or proportion depends on P and on the magnitude of the difference between respondents and nonrespondents:

$$\text{Bias} = P(Y_R - Y_{NR}) \qquad (3)$$

Nonresponse bias will be small if the nonrespondent stratum constitutes only a small portion of the survey population or if the differences between respondents and nonrespondents are small. P can generally be estimated from survey data using an appropriately weighted nonresponse rate.

In the High School and Beyond study, there were two stages of sample selection and therefore two stages of nonresponse. During the base year survey, sample schools were asked to permit the selection of

individual sophomores and seniors from school rosters and to designate "survey days" for the collection of student questionnaire and test data. Schools that refused to cooperate in either of these activities were dropped from the sample. Individual students at cooperating schools could also fail to take part in the base year survey. Unlike "refusal" schools, nonparticipating students were not dropped from the sample; they remained eligible for selection into the follow-up samples.

Estimates based on student data from the base year surveys include two components of nonresponse bias:

$$\text{Bias} = (Y_{1R} - Y) + (Y_{2R} - Y_{1R}), \qquad (4)$$

in which

Y = a parameter characterizing all students,

Y_{1R} = the corresponding parameter for all students attending cooperating schools, and

Y_{2R} = the corresponding parameter for all cooperating students attending cooperating schools.

The first component $(Y_{1R} - Y)$ represents the bias introduced by nonresponse at the school level, and the second component $(Y_{2R} - Y_{1R})$ represents bias introduced by nonresponse on the part of students attending cooperating schools. Each component of the overall bias depends on two factors--the level of nonresponse and the difference between respondents and nonrespondents:

$$\text{Bias} = P_1(Y_{1R} - Y_{1NR}) + P_2(Y_{2R} - Y_{2NR}) \qquad (5)$$

in which

P_1 = the proportion of the population of students attending schools that would have been nonrespondents,

Y_{1NR} = the parameter describing the population of students attending nonrespondent schools,

P_2 = the proportion of students attending respondent schools who would have been nonrespondents, and

Y_{2NR} = the parameter describing this group of students.

The implications of equations (4) and (5) can be easily seen in terms of a particular base year estimate. On the average, sophomores got 10.9 items right on a standardized vocabulary test[8]. This figure is an estimate of Y_{2R}, the population mean for all participating students at cooperating schools. Now, suppose that sophomores at cooperating schools average two more correct than sophomores attending refusal schools $(Y_{1R} - Y_{1NR} = 2)$, and suppose further that among sophomores attending cooperating schools, student respondents average one more

correct answer than student nonrespondents ($Y_{2R} - Y_{2NR} = 1$). Noting that the base year school nonresponse rate was about .30[9] and the student nonresponse rate for sophomores was about .12[10], we can use these figures as estimates of P_1 and P_2 and we can use equation (5) to calculate the bias as:

$$\text{Bias} = .30(2) + .12(1) = .72$$

That is, the sample estimate is biased by about .7 of a test score point.

This example assumes knowledge of the relevant population means; in practice, of course, they are not known and, although P_1 and P_2 can generally be estimated from the nonresponse rates, the lack of survey data for nonrespondents prevents the estimation of the nonresponse bias. The High School and Beyond study is an exception to this general rule: during the first follow-up, school questionnaire data were obtained from most of the base year refusal schools, and student data were obtained from most of the base year student nonrespondents selected for the first follow-up sample. These data provide a basis for assessing the magnitude of nonresponse bias in base year estimates.

The bias introduced by base year school-level refusals is of particular concern since it carries over into successive rounds of the survey. Students attending refusal schools were not sampled during the base year and have no chance for selection into subsequent rounds of observation. To the extent that these students differ from students from cooperating schools during later waves of the study, the bias introduced by base year school nonresponse will persist. Student nonresponse is not carried over in this way since student nonrespondents remain eligible for sampling in later waves of the study.

The results of three types of analyses concerning nonresponse are described in an earlier report[11]. Based on school questionnaire data, schools that participated during the base year were compared with all eligible schools. Based on the first follow-up student data, base year student respondents were compared with nonrespondents. Finally, student nonresponse during the first follow-up survey was analyzed. Taken together, these earlier analyses indicated that nonresponse had little effect on base year and first follow-up estimates. The results presented there suggest that the school-level component of the bias affected base year estimates by 2 percent or less and that the student-level component had even less impact.

In section 3.7.2, we analyze student nonresponse during the HS&B third follow-up. The school-level component of the nonresponse bias in third follow-up estimates is just the carryover from base year school nonresponse, which was shown to be 2 percent or less in the analysis cited above.

3.7.2 Analysis of Follow-Up Survey Student Nonresponse Rates

This section examines the antecedents and correlates of nonresponse. A few preliminary remarks on the bias resulting from nonresponse are nonetheless in order. First, it should be noted that

school nonresponse may have the same effect on base year, first, second, and third follow-up estimates--students attending refusal schools were not sampled in the base year and have no chance of inclusion in the first, second, or third follow-up. For this reason, the estimates presented in earlier reports[12] may serve as estimates of the bias due to school nonresponse for the follow-up surveys as well as the base year. To the extent that the association between school attended and student characteristics decreases with the passage of time since the base year, the biasing effect of school refusals may be less now than it was for the base year. Second, student nonresponse was much lower in the third follow-up than in the base year survey; other things being equal, the bias due to student nonresponse should be correspondingly smaller (see Equation 5). Overall, the weighted student nonresponse rates during the third follow-up were 9.6 percent in the sophomore cohort and 11.7 percent in the senior cohort (versus 12.0 and 15.2 percent respectively during the base year). Thus, it is reasonable to expect that bias in third follow-up estimates due to student nonresponse is smaller than that in the base year estimates, where it was already small.

There were several causes of student nonparticipation in the follow-up surveys. Some students refused to cooperate; others could not be located or were unavailable at the time of the third follow-up survey, and a few had died. For the third follow-up, those who were deceased were treated as participants rather than non-respondents. Nonresponse rates were calculated in the usual way; the nonresponse rate is the proportion of the selected students who were nonrespondents:

$$P = \frac{NR}{R + NR}$$

in which

P = the nonresponse rate

R = the number of responding students

NR = the number of nonresponding students.

Nonresponse rates were calculated for each cohort by school-level and student-level variables using both unweighted and weighted data. The weight used was RAWWT. (See section 3.5 for a complete description of the weighting procedures.)

An overall indication of the level of participation and nonparticipation in the base year, first follow-up, second follow-up, and third follow-up surveys is presented in Table 3.7.2-1 and 3.7.2-2. These tables show frequencies and percentages of cases in each of sixteen cells. The totals presented in Tables 3.7.2-1 and 3.7.2-2 are unweighted.

Table 3.7.2-1
Participation Patterns for Base Year,
First Follow-Up, Second Follow-Up, and Third Follow-Up Surveys:
Sophomore Cohort

Participation Patterns*				Frequency	Percent
Sophomore Cohort					
BY	1FU	2FU	3FU		
N	N	N	N	76	0.5
N	N	N	Y	23	0.2
N	N	Y	N	9	0.1
N	N	Y	Y	18	0.1
N	Y	N	N	53	0.4
N	Y	N	Y	60	0.4
N	Y	Y	N	76	0.5
N	Y	Y	Y	758	5.1
Y	N	N	N	104	0.7
Y	N	N	Y	93	0.6
Y	N	Y	N	52	0.4
Y	N	Y	Y	343	2.3
Y	Y	N	N	259	1.8
Y	Y	N	Y	447	3.0
Y	Y	Y	N	715	4.8
Y	Y	Y	Y	11,683	79.1
Total				14,769	100.0

NOTE: Counts refer to main samples only, excluding nonsampled co-twins and excluding deceased persons.

*BY = base year survey; 1FU = first follow-up survey;
2FU = second follow-up survey; 3FU = third follow-up survey;
Y denotes participation, and N denotes nonparticipation.

Table 3.7.2-2
Participation Patterns for Base Year,
First Follow-Up, Second Follow-Up, and Third Follow-Up:
Senior Cohort

Participation Pattern*				Frequency	Percent
Senior Cohort					
BY	1FU	2FU	3FU		
N	N	N	N	48	0.4
N	N	N	Y	13	0.1
N	N	Y	N	4	0.0
N	N	Y	Y	18	0.2
N	Y	N	N	18	0.2
N	Y	N	Y	20	0.2
N	Y	Y	N	35	0.3
N	Y	Y	Y	335	2.8
Y	N	N	N	195	1.6
Y	N	N	Y	106	0.9
Y	N	Y	N	77	0.6
Y	N	Y	Y	294	2.5
Y	Y	N	N	266	2.2
Y	Y	N	Y	377	3.2
Y	Y	Y	N	769	6.4
Y	Y	Y	Y	9,373	78.5
Total				11,948	100.0

NOTE: Counts refer to main samples only, excluding nonsampled co-twins, and excluding deceased persons.

*BY = base year survey; 1FU = first follow-up survey; 2FU = second follow-up survey; 3FU = third follow-up survey; Y denotes participation, and N denotes nonparticipation.

3.7.2.1 Third Follow-Up Student Nonresponse Rates: School Variables

This section examines nonresponse to the third follow-up for each cohort by school-level variables. Five variables are shown in Table 3.7.2.1-1: school type, census region, level of urbanization, percentage of Black enrollment, and average enrollment. Base year and first follow-up data were used to classify the schools. The responses rates given in the table are weighted, using RAWWT.

Table 3.7.2.1-1 indicates that the highest nonresponse rate for the sophomore cohort occurred among respondents who had been alternative public school students (19.8 percent), and the lowest rate

was among former students at Catholic schools (5.7 percent). Among seniors, former Hispanic public school students had the highest nonresponse rate (16.9 percent) and former Catholic students the lowest (10.4 percent).

There is moderate variation in nonresponse by region, although in both cohorts, sample members selected from schools in the West show the highest rate of nonresponse (11.9 percent for the sophomores and 16.4 percent for the seniors). The nonresponse rates were lowest for participants who had been students in North Central schools (around 7.6 percent for each cohort).

Table 3.7.2.1-1
Weighted Student Nonresponse Rates by Selected School Characteristics (figures are percents)

Characteristics	Sophomore cohort	Senior cohort
Total population	9.6	11.7
School type:		
Regular public	9.6	11.6
Hispanic public	11.3	16.9
Alternative public	19.8	11.3
Non-Catholic private	11.9	14.7
Catholic	5.7	10.4
Region:		
Northeast	11.3	12.6
North Central	7.3	7.8
South	9.2	11.8
West	11.9	16.4
Urbanization:		
Urban	14.4	14.3
Suburban	9.2	12.8
Rural	6.7	8.2
Percent Black:		
25% or less	8.6	11.0
Greater than 25%	13.3	13.8
Other/unknown	10.8	15.3
Average enrollment:		
100 or less	7.6	10.0
101-135	7.4	11.1
326-550	8.9	11.5
More than 550	13.5	13.6
Other/unknown	11.7	16.3

For both cohorts, there is a small but consistent relationship between student nonresponse and level of urbanization. The nonresponse rate is highest for students who were attending urban schools at the time of the base year sample selection (14.4 percent for the sophomore cohort and 14.3 percent for the senior), next highest for students from suburban schools (9.2 percent for sophomores and 12.8 percent for seniors) and lowest for students from rural schools (6.7 percent for sophomores and 8.2 percent for seniors).

Students selected at schools with a large percentage of Blacks (25 percent or more) showed somewhat higher rates of nonresponse than students at schools with fewer Blacks. The difference in nonresponse rates between these groups is slightly larger for the sophomore cohort (13.3 versus 8.6 percent) than for the seniors (13.8 versus 11.0 percent).

Student nonresponse seems to increase roughly with school size. For both cohorts, the rates are highest among students who attended the largest schools.

3.7.2.2 Third Follow-Up Survey Student Nonresponse Patterns: Student-Level Variables

In this section, the student nonresponse rates to the third follow-up survey are analyzed by student-level variables, including demographic characteristics, academic aptitude, high school program, and postsecondary education. Students were classified by their responses to the base year questionnaire for all characteristics except student status (for which first and second follow-up data were used). Table 3.7.2.2-1 shows the weighted rate of nonresponse by race, sex, high school academic program, base year SES, and student status. The category "other/unknown" is a general classification that includes both cases with missing data and cases that did not fall into any of the other specifically defined categories. Nonresponse generally is substantially higher for the "other/unknown" categories. This is an artifact attributable to the substantial number of third follow-up nonrespondents who were also nonrespondents in both the base year and the first follow-up surveys. These triple nonparticipants could only be classified in the unknown category, hence elevating the nonresponse rate for that group.

Table 3.7.2.2-1
Weighted Student Nonresponse Rates
by Selected Student Characteristics

Characteristics	Sophomore cohort	Senior cohort
Total population	9.6	11.7
Race:		
White/other	6.7	9.2
Black	13.1	15.3
Hispanic	11.9	13.1
Other/unknown	36.2	39.4
Sex:		
Male	11.6	14.1
Female	7.6	9.5
Academic program:		
General	9.9	11.1
Academic	6.3	8.0
Vocational	9.5	11.0
Other/unknown*	63.3	21.1
SES quartile in base year:		
Highest quartile	5.7	8.2
Middle two quartile	7.6	9.6
Lowest quartile	9.4	11.5
Other/unknown	35.3	21.5
Student status:		
No postsecondary education	7.8	9.2
Only vocational postsecondary education	28.8	31.2
Other postsecondary education	4.5	8.1

* "Other/unknown" includes cases with missing data and cases who did not otherwise fall into any of the defined categories.

There is marked variation in student nonresponse by race. Blacks show the highest nonresponse rate in both cohorts, followed by Hispanics, and then by whites and others; however, a substantial portion of the second follow-up student nonrespondents were also base year and first follow-up nonrespondents and were not classified by race. For this reason, there is some uncertainty about the actual nonresponse rates for the different racial and ethnic groups.

In both cohorts, males exhibit a higher nonresponse rate than females. The difference is 4.0 percent in the sophomore cohort (11.6 percent for males versus 7.6 percent for females) and 4.6 percent in the senior cohort (14.1 versus 9.5 percent).

In both cohorts, students who were in academic programs during the base year were less likely to be nonrespondents than students in general or vocational programs.

In each cohort, nonresponse was highest for students classified as the lowest SES level (9.4 percent in the sophomore cohort, 11.5 percent in the senior cohort). The lowest nonresponse rates were observed for students classified in the highest SES category (5.7 and 8.2 percent).

Table 3.7.2.2-1 also shows that the students who had non-vocational postsecondary education had the lowest nonresponse rates (4.5 percent for sophomores and 8.1 percent for seniors); students who reported no postsecondary education had somewhat higher rates of nonresponse (7.8 percent and 9.2 percent), and students who had only postsecondary vocational education had extremely high nonresponse rates (28.8 percent and 31.2 percent).

These differences across groups in response rates are somewhat similar to those observed during previous rounds of data collection. A picture of student nonrespondents is continuing to emerge from the analyses; it suggests that groups with less involvement with education were less likely to participate in the survey. Dropouts had higher nonresponse rates than non-dropouts; students with lower grades and lower test scores showed higher nonresponse than students with higher grades and test scores; students who were frequently absent from school showed higher nonresponse than students absent infrequently; and students in vocational or general programs were more likely to be nonrespondents than students in academic programs.

3.7.2.3 Summary of Nonresponse Analyses

The analyses presented here and in previous reports[13] support three general conclusions:

(1) The school-level bias component in estimates is small, averaging less than 2 percent for base year and first follow-up estimates. It is probably of a similar magnitude for third follow-up estimates.

(2) The student-level bias component in base year estimates is also small, averaging about .5 percent for percentage estimates concerning either cohort.

(3) The student-level bias component in first, second, and third follow-up estimates is limited by the nonresponse rates, which for both cohorts were about three fourths of the base year rates.

The first and second conclusion together suggest that nonresponse bias is not a major contributor to error in base year estimates; the first and third suggest that nonresponse bias is not a major contributor to error in follow-up estimates either.

Each of these conclusions must be given some qualifications. The analysis of school-level nonresponse is based on data concerning the schools, not the students attending them. The analyses of student nonresponse are based on survey data and are themselves subject to nonresponse bias. Despite these limitations, the results consistently indicate that nonresponse had a small impact on base year and follow-up estimates.

3.8 Standard Errors and Design Effects

This section examines the standard errors for statistics--such as means and proportions--derived from the third follow-up survey data sets. Most researchers are familiar with the use of standard errors to assess the variability of estimates based on simple random samples; more complex designs, however, raise less familiar statistical issues. Both the senior and sophomore cohorts for the third follow-up survey were selected using stratified, clustered, unequal probability designs. With such complex designs, standard errors must be calculated using procedures different from the familiar methods used for data from simple random samples.

Before presenting standard errors for third follow-up survey estimates, it is useful to discuss some of the statistical issues raised by complex sample designs. First the computational procedures used to estimate the standard errors are discussed, followed by an examination of the relationship between standard errors based on complex samples and those based on simple random samples.

3.8.1 Computational Procedures

In a simple random sample, the mean is estimated as

$$\bar{x}_{srs} = \sum^{n} x_i/n \qquad (1)$$

Only the numerator is subject to sampling error; the denominator (the sample size) is taken as a fixed constant. In more complex sample designs, the mean is estimated as a ratio of estimates; for the High School and Beyond survey, the ratio is

$$r = \frac{\Sigma\Sigma\Sigma y_{hij}}{\Sigma\Sigma x_{hi}} = y/x \qquad (2)$$

in which

y_{hij} = the weighted value for student j from school i in stratum h,

x_{hi} = the estimated size of school i in stratum h.

The numerator (y) represents an estimate of the population total; the denominator (x), an estimate of the population size. When cluster sizes (i.e., school sizes) are unequal, the overall sample size will fluctuate depending on which clusters are selected. For the same reason, the estimates of the population size will show sampling fluctuation. Thus, for a ratio estimator, both the numerator and the denominator are subject to sampling error.

Kish and Frankel[14] distinguish three major approaches to the computation of standard errors for statistics based on complex designs where ratio estimators must be used: Taylor Series, balanced repeated replication (BRR), and jackknife repeated replication (JRR).

Taylor Series estimation. It can be shown[15] that the variance of r (i.e., the square of the standard error of r) is

$$E(r - R)^2 = E\left(\frac{dy - Rdx}{X^2}\right)^2 \frac{1}{(1 + dx/X)^2} \qquad (3)$$

in which

$E(r - R)^2$ = the expected value of the squared difference between the population parameter R and the sample estimate r

dy = the difference between the sample estimate y and the population value Y

X = the population size

dx = the difference between the sample estimate of the population size, x, and the population size X.

If the term involving one plus the relative error of x is ignored (i.e., dx/X is negligible), it can be shown that (3) reduces to:

$$E(r - R)^2 = 1/X^2 \, (Var_y + R^2 Var_x - 2 \, R \, Cov_{xy}) \qquad (4)$$

in which

Var_y = the variance of y

Var_x = the variance of x

Cov_{xy} = the covariance of x and y

All the terms in equation (4) can be estimated from sample data (e.g., r would take the place of R, x the place of X, and so forth). The variance terms are estimated by the variation of primary selection means around the stratum mean. Sampling statisticians have offered several rationales for the use of equation (4) as an approximation of (3). One line of argument[16] makes use of a standard approximation technique, called Taylor Series approximation, which gives this approach its name.

Balanced repeated replication (BRR). The replication approach was originally developed by Deming.[17] The principle underlying replicated sampling is quite simple. If a sample of size n is desired, g independent replicate samples are selected, each of size n/g. The variation among estimates from each replicate can be used to estimate the variance of estimates based on the entire sample.

Balanced repeated replication extends the principle of replication. It is usually applied to stratified designs with two primary selections per stratum. By choosing one primary selection from each stratum, a half-sample is created; the unselected primary units form another half-sample. In a design with h strata, a total of $2^{(h-1)}$ different pairs of half-samples can be formed in this fashion. Each pair is referred to as a replicate. It is customary to form only a portion of the possible replicates using an orthogonal balanced design.

For any given replicate, estimates such as the ratio means can be computed from each half-sample. Then the sampling variance for the overall statistic (r) can be estimated in any of several ways.[18] One method compares the estimate from one half-sample with the overall estimate:

$$Var_k\ (r) = (r_{1k} - r)^2 \qquad (5)$$

in which

$Var_k\ (r)$ = the variance estimate based on replicate k,

r = an estimate of R based on the entire sample, and

r_{1k} = an estimate of R based on one of the half-samples from replicate k.

The final estimate for the variance of r is the average of Var_k across all the replicates. The estimate r need not be a ratio mean; the logic of BRR applies to any type of estimate, giving the method its broad generality.

Jackknife repeated replication (JRR). Equation (5) shows that the variance of a sample statistic can be estimated using data from a portion of the sample, that is, from a single half-sample. Jackknifing is a generalization of this idea. Estimates of variance can be obtained from subsamples of a single original sample with a technique known as jackknifing.

Frankel[19] has shown how jackknifing can be used with complex stratified samples. Again this assumes a design with two primary selections in each stratum. For a particular stratum, the variance can be estimated:

$$Var_h = (r_{1h} - r_h)^2 \qquad (6)$$

in which

r_{1h} = an estimate based on one of the primary selections from stratum h, and

r_h = the corresponding estimate based on both primary selections from the stratum.

The estimated variance for the entire sample is just the sum of the estimated strata variances. With JRR, each "replication" represents the contribution of a single stratum to the variance of estimates from the entire sample.

Comparison of the methods. In the base year survey, NORC provided standard errors for sample statistics, using a program based on the Taylor Series approach. Prior to the first follow-up survey, NCES (now CES) acquired a program that computes BRR standard error estimates. BRR programs were used to compute standard errors for statistics derived from the first and second follow-up data sets.

BRR assumes a design with two primary selections per stratum. Although the High School and Beyond sample is stratified, each of the original strata includes more than two primary selections (the primary selections in this case were high schools or students at high schools that came into the sample with certainty). In order to meet the assumptions of BRR, the original 26 school strata[20] were divided into 90 "computing" strata. Within each computing stratum, the primary selections were randomly divided into two groups, which were treated as "pseudo-primaries." The BRR program thus treats the sample as though it included two primary selections from each of 90 strata.[21]

Previous empirical investigation[22] indicated that Taylor Series, BRR and JRR gave comparable results, although BRR standard error estimates consistently gave more accurate significance levels for t-statistics. Nonetheless, a comparison of Taylor Series and BRR standard error estimates was undertaken in order to assure that standard errors from the base year and first follow-up surveys could be interpreted in the same way. The comparison showed no appreciable differences between the Taylor Series and BRR standard error estimates.[23]

3.8.2 Design Effects

No matter which method is used to estimate the standard errors for follow-up survey statistics, the standard errors will be different from standard errors calculated on the assumption that the data are from a simple random sample. Like most national samples, the High School and Beyond sample is not a simple random sample; it departs from the model of simple random sampling in three major respects: the selections are clustered by school, major subgroups (such as private school students) are deliberately overrepresented in the sample, and the selections are stratified by school type. (The sample design is summarized in section 3.1-3.4.) Each of these departures from simple random sampling has a predictable impact on the standard errors of sample estimates. The variance of a statistic from a complex sample can be represented as the product of four factors:

$$\text{Var}(\bar{x}) = \text{Var}_{srs} \times \text{Cluster} \times \text{Strat} \times \text{Disprop} \qquad (7)$$

in which

$\text{Var}(\bar{x})$ = the actual variance of a sample estimate,

Var_{srs} = the estimate variance that would be obtained if the sample were treated as a simple random sample, and

Cluster, Strat, Disprop = factors representing the impact of clustering, stratification, and disproportionate sampling.

$\text{Var}(\bar{x})$ can be estimated from sample data using any of the techniques considered earlier.

The ratio of $\text{Var}(\bar{x})$ to Var_{srs} is commonly referred to as the design effect (DEFF).

In many cases, it is more useful to work with standard errors than with variances. The root design effect (DEFT) expresses the relation between the actual standard error of an estimate and the standard error of the corresponding estimate from a simple random sample:

$$\text{DEFT} = (\text{DEFF})^{1/2} \qquad (8)$$

$$= (\text{Var}(\bar{x})/\text{Var}_{srs})^{1/2}$$

$$= \text{se}(\bar{x})/\text{se}_{srs}$$

The mean design effects given in tables 3.8-1a through 3.8-5b can be used to calculate approximate standard errors for other estimates not

included in the tables. For example, for proportions, the simple random sample variance is just

$$= p(1 - p)/n \qquad (9)$$

in which p = the estimated proportion, and

n = the number of cases with non-missing data,

and so the standard error of a proportion can be estimated using the square root of the expression in (9) times the mean root design effect (DEFT):

$$SE = DEFT\ (p[1-p]/n)^{1/2} \qquad (10)$$

Similarly, the standard error of an individual change in proportion can be calculated as the mean DEFT times the square root of the weighted variance of the change scores:

$$SE = DEFT\ (WTVAR/n)^{1/2} \qquad (11)$$

in which

WTVAR = weighted variance of the individual change scores,

n = unweighted number of valid observations, and

DEFT = mean of the root design effects for change estimates.

The appropriate weight to use in calculating the variance for change estimates using the base year through third follow-up survey data is the panel weight (PANELWT4). The appropriate values of DEFT to use for inflating standard errors based on simple-random-sampling calculations are discussed below.

3.8.3 Standard Errors and Design Effects

This section presents several sets of standard errors and design effects calculated on data from all four waves. Standard errors and design effects pertain to proportions of a sample who had specified characteristics.

3.8.3.1 Base-Year and First Follow-Up

Table 3.8-1a displays standard errors and design effects for the sophomore cohort for 30 proportions and seven averages based on weighted data from the first follow-up questionnaires and tests. The

Table 3.8-1a
Standard Errors and Design Effects Associated with Estimated Proportions of First Follow-Up Sophomores Who Had Specified Characteristics, Using FU1WT

Statistic	Item Number*	Estimate	SE	DEFF	DEFT
Proportions					
In vocational program	2	0.270	0.007	6.922	2.631
Worked last week	24	0.532	0.005	2.804	1.675
Working at clerical job	29	0.250	0.005	3.080	1.755
Current job is place where people goof off	33A	0.132	0.004	2.958	1.720
Work more enjoyable than school	33C	0.513	0.005	2.149	1.466
Job encourages good work habits	33D	0.789	0.004	2.114	1.454
Father non-professional	53A	0.887	0.005	6.276	2.506
Father finished college	55	0.213	0.007	7.040	2.653
Mother finished college	56	0.136	0.005	5.374	2.318
Watch more than one hour of TV per day	61	0.791	0.003	1.480	1.217
Career success important	73A	0.860	0.003	1.960	1.400
Having lots of money not important	73C	0.103	0.003	2.549	1.597
Important to be a leader in community	73F	0.476	0.006	3.748	1.936
Important to live close to parents	73H	0.707	0.005	3.147	1.774
Having leisure time not important	73L	0.017	0.001	1.552	1.246
Have a positive attitude toward self	75A	0.932	0.002	1.564	1.250
Good luck more important than hard work	75B	0.127	0.003	1.986	1.409
Believe someone or something prevents success	75E	0.256	0.005	3.122	1.767
Believe plans hardly ever work out	75F	0.199	0.004	2.434	1.560
Have little to be proud of	75L	0.126	0.003	1.992	1.411
Working to correct inequalities important	73J	0.396	0.004	1.738	1.318
No serious trouble with law	76A	0.949	0.003	4.845	2.201
Expect to finish full-time education	80	0.382	0.007	5.288	2.300
Would be satisfied with less than college ed.	82	0.744	0.006	4.693	2.166
Seen by others as physically unattractive	76	0.103	0.003	2.480	1.575
Married	97A	0.035	0.002	2.883	1.698
Expect first child by age 25	97B	0.538	0.005	2.404	1.550
Expect to have own home or apt. by age 24	97D	0.921	0.002	1.326	1.151
Expect to have no children	98	0.089	0.003	2.706	1.645
Hard of hearing	103C	0.019	0.001	1.472	1.213
Averages					
Vocabulary score		10.387	0.085	5.776	2.403
Reading score		7.657	0.072	5.217	2.284
Math, part 1 score		10.820	0.143	7.407	2.722
Math, part 2 score		2.736	0.041	5.031	2.243
Science score		9.475	0.073	5.969	2.443
Writing score		9.503	0.074	4.993	2.234
Civics score		5.441	0.037	4.326	2.080
Mean (Proportions only)				3.136	1.719
Mean (All statistics)				3.589	1.837
Minimum				1.326	1.151
Maximum				7.407	2.722
Standard Deviation				1.804	0.470

* First follow-up questionnaire number.

mean root design effect for the 37 statistics is 1.8, which is somewhat higher than the root design effect observed for the base year survey[24]. The reason for the difference is that the sample of sophomores for the first follow-up was a disproportionate subsample from the base year sample. Although most of the base year sophomore sample were retained (with certainty) for the first follow-up, several groups were subsampled. In particular, base year nonparticipants who dropped out of school prior to the first follow-up survey (approximately 500 cases) were subsampled at a rate of only 10 percent; the mean first follow-up survey weight for this group is about 15 times larger than the mean weight for the rest of the cohort sample. The variability of the weights due to disproportionate subsampling and higher nonresponse among dropouts reduces the efficiency of the sample and causes the increase in the design effects.

Table 3.8-1b displays standard errors and design effects for the senior cohort using the first follow-up questionnaire data and the first follow-up weights. The mean root design effect for the 30 proportions is 1.6. This is the same as the mean (1.6) found for the base year survey using Taylor Series estimation procedures rather than BRR. The sample of seniors for the follow-ups differs from the base year senior sample in several key respects. First of all, the sample is much smaller (11,995 selected cases versus 34,982), which means that the average cluster size (selections per school) is much smaller. Reducing the cluster size should increase the efficiency of the sample. However, the first follow-up sample of seniors represents some population subgroups even more disproportionately than did the base year sample; this greater disproportionality decreases the efficiency of the follow-up sample by introducing additional variability into the weights. Apparently, the effects of the reduced cluster size and the increased disproportionality offset each other--the base year and the follow-up samples exhibit similar mean design effects.

Table 3.8-1b
Standard Errors and Design Effects Associated with Estimated Proportions of First Follow-Up Seniors Who Had Specified Characteristics, Using FU1WT

Statistic	Item Number*	Estimate	SE	DEFF	DEFT
Hard of hearing	83-c	.012	.001	.890	.943
Having leisure time not important	85-l	.013	.001	.802	.896
Have physical handicap	84	.070	.003	1.487	1.220
Have little to be proud of	75-l	.087	.004	2.085	1.444
Expect to have no children	61	.098	.004	1.880	1.371
Two or more siblings in high school	73	.099	.003	1.079	1.039
Good luck more important than hard work	75-b	.100	.004	1.802	1.342
Expect to get married	15-a	.107	.006	3.963	1.991
Expect to finish full-time education	15-e	.136	.006	3.182	1.782
Mother finished college	21	.142	.009	7.161	2.676
Believe plans hardly ever work out	75-f	.143	.005	2.058	1.435
Having lots of money not important	85-c	.147	.004	1.362	1.167
Current job is place where people goof off	25-a	.182	.006	1.906	1.381
Believe someone/something prevents success	75-e	.216	.006	2.111	1.453
Father finished college	20	.227	.010	5.918	2.433
Planning professional career	16-a	.260	.006	2.064	1.437
Sibling in college	72	.372	.007	2.244	1.498
Have started first job	15-c	.420	.009	3.483	1.866
Important to be a leader in community	85-f	.465	.007	2.084	1.444
Plan to finish college	12	.486	.011	4.612	2.148
Expect first child by age 25	15-b	.489	.010	4.102	2.025
Work more enjoyable than school	25-b	.513	.008	2.011	1.418
Would be satisfied with less than college ed.	13	.629	.011	5.291	2.300
Working to correct inequalities important	85-j	.670	.007	2.345	1.531
Watch more than one hour of TV per day	76	.778	.007	3.167	1.780
Career success important	85-a	.829	.005	1.890	1.375
Job encourages good work habits	25-c	.858	.005	1.804	1.343
Have ability to finish college	14	.867	.005	2.355	1.535
Expect to have own home or apt. by age 24	15-d	.916	.004	2.203	1.484
Have a positive attitude toward self	75-a	.949	.003	1.923	1.387
Mean				2.642	1.571
Minimum				.802	.896
Maximum				7.161	2.676
Standard Deviation				1.499	.423

* First follow-up questionnaire number

Table 3.8-2a displays estimates for the base year sophomore sample using data from base year participants who were selected for the first follow-up sample. The questionnaire items in table 3.8-2a are identical to those in table 3.8-1a but the estimated proportions and standard errors are based on responses to these items in the base year sophomore questionnaire. For the most part, these items were repeated verbatim in the first follow-up questionnaire; in one case, however, response options were reordered in the follow-up questionnaire. As table 3.8-2a shows, the mean DEFT is 1.643, a value that differs little from the analogous figure calculated during the base year (1.651). The mean DEFT in table 3.8-2a is lower than the mean in table 3.8-1a (1.6 vs. 1.8), because, as noted earlier, the estimates for the follow-up sophomore sample are less efficient than estimates for the base year sophomores.

Table 3.8-2b displays estimates for the base year senior sample using only data from base year participants who were selected for the first follow-up sample. The questionnaire items in table 3.8-2b are identical to those in table 3.8-1b, but the estimated proportions and standard errors are based on responses to these items in the base year senior questionnaire. For the most part, these items were repeated verbatim in the first follow-up questionnaire; three of them, however, had an additional response option in the first follow-up questionnaire. As table 3.8-2b shows, the mean design effect is 1.618, a value that differs little from the analogous figure calculated during the base year.

Table 3.8-2a
Standard Errors and Design Effects Associated with Estimated Proportions and Averages of First Follow-Up Sophomores Who Had Specified Characteristics, Using Base Year Weights

Statistics	Item Number*	Estimate	SE	DEFF	DEFT
Proportions					
In vocational program	1	0.212	0.006	5.705	2.389
Worked last week	24	0.362	0.005	2.901	1.703
Working at clerical job	27	0.082	0.003	2.649	1.628
Current job is place where people goof off	30A	0.163	0.003	1.356	1.164
Work more enjoyable than school	30C	0.557	0.006	3.050	1.746
Job encourages good work habits	30D	0.722	0.003	0.945	0.972
Father non-professional	38	0.883	0.004	3.182	1.784
Father finished college	39	0.225	0.007	5.308	2.304
Mother finished college	42	0.139	0.005	4.508	2.123
Watch more than one hour of TV per day	48	0.909	0.003	2.896	1.702
Career success important	61A	0.850	0.003	1.846	1.359
Having lots of money not important	61C	0.102	0.003	2.556	1.599
Important to be a leader in community	61F	0.539	0.005	2.578	1.606
Important to live close to parents	61H	0.749	0.004	2.200	1.483
Having leisure time not important	73L	0.022	0.001	1.189	1.091
Have a positive attitude toward self	62A	0.909	0.002	1.131	1.064
Good luck more important than hard work	62B	0.155	0.003	1.612	1.270
Believe someone or something prevents success	62E	0.301	0.004	1.736	1.317
Believe plans hardly ever work out	62F	0.221	0.004	2.190	1.480
Have little to be proud of	62L	0.156	0.003	1.623	1.274
Working to correct inequalities important	61J	0.363	0.003	1.003	1.001
No serious trouble with law	67A	0.944	0.002	1.944	1.394
Expect to finish full-time education	69	0.397	0.006	3.916	1.979
Would be satisfied with less than college ed.	71	0.800	0.005	3.943	1.986
Seen by others as physically unattractive	67C	0.166	0.003	1.606	1.267
Married	78A	0.003	0.000	--	--
Expect first child by age 25	78B	0.583	0.004	1.563	1.250
Expect to have own home or apt. by age 24	78D	0.929	0.002	.469	1.212
Expect to have no children	80	0.101	0.003	2.458	1.568
Hard of hearing	88C	0.024	0.001	1.034	1.017
Averages					
Vocabulary score		8.479	0.068	4.070	2.017
Reading score		6.649	0.060	4.025	2.006
Math, part 1 score		9.801	0.116	5.646	2.376
Math, part 2 score		2.494	0.039	5.148	2.269
Science score		8.777	0.069	5.540	2.354
Writing score		8.127	0.070	4.523	2.127
Civics score		4.479	0.039	5.182	2.276
Mean (Proportions only)				2.417	1.508
Mean (All statistics)				2.895	1.643
Minimum				.945	.972
Maximum				5.705	2.389
Standard Deviation				1.523	.448

* Base year questionnaire number.

Table 3.8-2b
Standard Errors and Design Effects Associated With Estimated Proportions of First Follow-Up Seniors Who Had Specified Characteristics, Using BYWT

Statistic	Item Number*	Estimate	SE	DEFF	DEFT
Hard of hearing	BB087C	.018	.002	2.404	1.551
Having leisure time not important	BB057L	.021	.002	2.184	1.478
Have physical handicap	BB088	.054	.003	1.932	1.390
Have little to be proud of	BB058L	.116	.005	2.563	1.601
Expect to have no children	BB082	.098	.005	3.037	1.743
Two or more siblings in high school	EB099	.141	.005	2.222	1.491
Good luck more important than hard work	BB058B	.121	.004	1.573	1.254
Expect to get married	BB081A	.010	.002	4.300	2.074
Expect to finish full-time education	BB081E	.013	.001	0.844	0.919
Mother finished college	BB042	.148	.008	4.915	2.217
Believe plans hardly ever work out	BB058F	.188	.006	2.434	1.560
Having lots of money not important	BB057C	.116	.005	2.710	1.646
Current job is place where people goof off	BB027A	.169	.005	1.667	1.291
Believe someone or something prevents success	BB058E	.236	.007	2.763	1.662
Father finished college	BB039	.245	.011	5.461	2.337
Planning professional career	BB062	.269	.005	1.390	1.179
Sibling in college	EB098	.314	.007	2.443	1.563
Have started first job	BB081C	.170	.005	1.868	1.367
Important to be a leader in community	BB057F	.510	.008	2.815	1.678
Plan to finish college	BB065	.457	.009	3.646	1.909
Expect first child by age 25	BB081B	.523	.010	4.151	2.038
Work more enjoyable than school	BB027C	.515	.007	1.850	1.360
Would be satisfied with less than college ed.	BB067	.713	.009	4.329	2.081
Working to correct inequalities important	BB057J	.610	.008	2.969	1.723
Watch more than one hour of TV per day	BB048	.848	.006	3.150	1.775
Career success important	BB057A	.880	.004	1.695	1.302
Job encourages good work habits	BB027D	.787	.006	2.104	1.450
Have ability to finish college	BB069	.803	.005	1.744	1.321
Expect to have own home or apt. by age 24	BB081D	.913	.004	2.123	1.457
Have a positive attitude toward self	BB058A	.908	.006	4.564	2.136
Mean				2.728	1.618
Minimum				0.844	0.919
Maximum				5.461	2.337
Standard Deviation				1.136	0.336

* Base year SPSS variable name

Tables 3.8-3a and 3.8-3b display standard errors and design effects for changes in 30 proportions and, for sophomores, changes in seven test scores (Table 3.8-3a only). The statistics are based only on those students who participated in both the base year and the first follow-up survey and the changes refer to differences between base year and first follow-up responses.

The change statistics in tables 3.8-3a and 3.8-3b were computed by taking the weighted mean of the changes shown by each respondent who participated in both the base year and first follow-up surveys. The standard errors (and design effects) thus reflect the fact that whether a respondent was, for example, hard of hearing during the base year is correlated with his or her being hard of hearing during the first follow-up. The change estimates were calculated using individual change scores of sample members who participated in both the base year and first follow-up. Thus, the standard errors for these estimates take into account the correlation between base year and first follow-up respondents. The change estimates are directional: a negative estimate indicates that fewer respondents fell into the category of interest (e.g., hard of hearing) during the first follow-up survey; a positive estimate indicates that more respondents fell into the category. The mean DEFTs in table 3.8-3a are lower than those for tables 3.8-1a and 3.8-2a (1.4 vs 1.8 and 1.6). Similarly, mean DEFTs in table 3.8-3b are lower than those for tables 3.8-1b and 3.8-2b (1.5 vs 1.6). This probably reflects the observed tendency of more complex statistical estimates (such as change estimates, or correlation or regression coefficients) to exhibit smaller design effects than simple estimates.

Table 3.8-3a
Standard Errors and Design Effects Associated with Changes (between Base Year and First Follow-Up) in the Proportions and Averages of First Follow-Up Sophomores Who Had Specified Characteristics, Using First Follow-Up Weights

Statistic	Change Estimate	SE	DEFF	DEFT
Proportions				
In vocational program	0.054	0.004	1.646	1.283
Worked last week	0.177	0.005	1.651	1.285
Working at clerical job	0.168	0.005	2.033	1.426
Current job is place where people goof off	-0.033	0.004	1.184	1.088
Work more enjoyable than school	-0.046	0.006	1.487	1.220
Job encourages good work habits	0.077	0.005	1.356	1.165
Father non-professional	0.002	0.002	0.952	0.976
Father finished college	-0.001	0.002	1.242	1.114
Mother finished college	-0.002	0.002	1.601	1.265
Watch more than one hour of TV per day	-0.116	0.003	1.193	1.092
Career success important	0.009	0.004	1.925	1.387
Having lots of money not important	0.000	0.003	1.577	1.256
Important to be a leader in community	-0.057	0.005	1.751	1.323
Important to live close to parents	-0.046	0.005	2.130	1.460
Having leisure time not important	-0.006	0.002	2.779	1.667
Have a positive attitude toward self	0.027	0.003	1.801	1.342
Good luck more important than hard work	-0.030	0.004	2.087	1.445
Believe someone or something prevents success	-0.047	0.005	1.810	1.345
Believe plans hardly ever work out	-0.026	0.004	1.413	1.189
Have little to be proud of	-0.036	0.004	1.833	1.354
Working to correct inequalities important	0.033	0.005	1.608	1.268
No serious trouble with law	0.007	0.002	1.405	1.185
Expect to finish full-time education	-0.021	0.004	1.728	1.315
Would be satisfied with less than college ed.	-0.059	0.004	1.937	1.392
Seen by others as physically unattractive	-0.063	0.004	2.081	1.443
Married	0.035	0.002	2.198	1.483
Expect first child by age 25	-0.037	0.005	1.613	1.270
Expect to have own home or apt. by age 24	-0.008	0.003	1.655	1.286
Expect to have no children	-0.020	0.004	3.026	1.740
Hard of hearing	-0.004	0.002	3.338	1.827
Averages				
Vocabulary score	2.070	0.040	2.816	1.678
Reading score	1.177	0.026	1.145	1.070
Math, part 1 score	1.352	0.053	2.541	1.594
Math, part 2 score	0.317	0.024	1.926	1.388
Science score	0.884	0.033	2.044	1.430
Writing score	1.603	0.044	2.871	1.695
Civics score	1.056	0.035	3.451	1.858
Mean (Proportions only)			1.801	1.330
Mean (All statistics)			1.945	1.368
Minimum			.952	.976
Maximum			3.451	1.858
Standard Deviation			.611	.213

Table 3.8-3b
Standard Errors and Design Effects Associated with Changes (between Base Year and First Follow-Up) in the Proportion of First Follow-Up Seniors Who Had Specified Characteristics

Statistic	Change Estimate	SE	DEFF	DEFT
Hard of hearing	-.006	.002	2.060	1.435
Having leisure time not important	-.009	.002	1.408	1.187
Have physical handicap	+.015	.005	2.435	1.560
Have little to be proud of	-.029	.005	1.520	1.233
Expect to have no children	-.004	.005	1.978	1.407
Two or more siblings in high school	-.043	.005	1.844	1.358
Good luck more important than hard work	-.022	.005	1.588	1.260
Expect to get married	+.095	.005	2.676	1.636
Expect to finish full-time education	+.116	.005	1.949	1.396
Mother finished college	-.001	.004	2.988	1.729
Believe plans hardly ever work out	-.047	.006	1.578	1.256
Having lots of money not important	+.030	.008	4.178	2.044
Current job is place where people goof off	+.015	.008	1.693	1.301
Believe someone or something prevents success	-.026	.008	2.316	1.522
Father finished college	+.002	.004	2.894	1.701
Planning professional career	-.010	.006	1.395	1.181
Sibling in college	+.067	.010	3.323	1.823
Have started first job	+.247	.008	1.977	1.406
Important to be a leader in community	-.040	.008	2.155	1.468
Plan to finish college	-.005	.006	1.998	1.414
Expect first child by age 25	-.032	.007	1.433	1.197
Work more enjoyable than school	-.010	.010	1.653	0.126
Would be satisfied with less than college ed.	-.079	.006	1.720	1.312
Working to correct inequalities important	+.062	.010	2.915	1.707
Watch more than one hour of TV per day	-.071	.007	2.207	1.486
Career success important	-.047	.007	2.613	1.617
Job encourages good work habits	+.060	.008	1.892	1.376
Have ability to finish college	+.066	.006	2.354	1.534
Expect to have own home or apt. by age 24	+.003	.006	2.690	1.640
Have a positive attitude toward self	+.043	.005	2.415	1.554
Mean			2.195	1.468
Minimum			1.395	1.181
Maximum			4.178	2.044
Standard Deviation			0.640	0.207

3.8.3.2 Second Follow-up

Tables 3.8-4a and 3.8-4b display the estimated percentages, standard errors, DEFFs, and DEFTs for variables from the second follow-up survey data. (As only ten of the thirty non-test items presented in the preceding tables were included in the second follow-up survey questionnaire, twenty additional items, representing estimated proportions of varying magnitudes, were added to this table). For sophomores, the mean DEFT for the thirty estimated percentages from the second follow-up survey is 1.54, a smaller figure than observed for the first follow-up and about equal to that for the base year. For seniors, the mean DEFT is 1.68, which is larger than the mean DEFT observed for the first two waves. For both cohorts, the variability of the design effects appears to be somewhat smaller than for either of the previous survey waves.

Table 3.8-4a
Estimated Percentages, Standard Errors, and Design Effects
in the Percentages of the Second Follow-Up Sophomores
Who Had Specified Characteristics (Weight=FU2WT)

Statistic	Item Number	Estimate	SE	DEFF	DEF
Working full time, Feb. '84	SY3A	58.51	0.67	2.53	1.59
Taking academic courses, Feb. '84	SY3C	33.61	0.81	4.00	2.00
Looking for work, Feb. '84	SY3I	9.96	0.35	1.86	1.36
Currently married	SY56	12.31	0.47	2.77	1.66
Have one or more children	SY65A	11.80	0.43	2.18	1.48
Expect to have 3 or more children	SY64	33.92	0.55	1.78	1.33
Have served on military active duty	SY43	6.21	0.35	2.80	1.67
If in PSE '82-'84: Earned no degree	SY18I,J-20I,J	70.40	0.64	1.35	1.16
If in PSE '82-'84: Earned vocational degree	SY18I,J-20I,J	1.11	0.14	1.23	1.11
If in PSE '82-'84: Earned 4-year college degree	SY18I,J-20I,J	1.47	0.21	2.14	1.46
Enrolled in postsecondary education, Oct. '82	PSEOC82	44.68	0.70	2.67	1.63
Enrolled in postsecondary education, Oct. '83	PSEOC83	42.78	0.79	3.43	1.85
If employed: In clerical occupation, Oct. '83	SY46A-49A	24.65	1.33	2.02	1.42
Employed, Oct. '83	JOBSOC83	66.57	0.63	2.37	1.54
Have used pocket calculator	SY8A2-A4	90.71	0.39	2.42	1.56
Have used computer terminal	SY8B2-B4	47.49	0.74	2.77	1.66
Have used mainframe computer	SY8E2-E4	23.33	0.60	2.51	1.59
Have used video tape recorder	SY8F2-F4	53.82	0.59	1.76	1.33
Have used audio cassette deck	SY8H2-H4	88.26	0.40	1.97	1.40
Have used word processor	SY8I2-I4	9.09	0.40	2.56	1.60
Currently registered to vote	SY69	53.72	0.70	2.61	1.62
Have voted in election since turning 18	SY70	33.38	0.72	3.08	1.76
Being successful in job very important	SY71A	85.27	0.45	2.11	1.45
Marrying the right person very important	SY71B	87.63	0.41	2.03	1.43
Having lots of money very important	SY71C	29.40	0.64	2.61	1.61
Being a community leader very important	SY71F	10.04	0.40	2.34	1.53
Better opportunities for children very important	SY71G	72.66	0.56	2.05	1.43
Working to correct inequalities very important	SY71J	14.08	0.50	2.78	1.67
Having children very important	SY71K	49.19	0.65	2.25	1.50
Having leisure time very important	SY71L	72.14	0.67	2.95	1.72
Mean				2.40	1.54
Minimum				1.23	1.11
Maximum				4.00	2.00
Standard Deviation				0.56	0.18

Table 3.8-4b
Estimated Percentages, Standard Errors, and Design Effects
in the Percentages of the Second Follow-Up Seniors
Who Had Specified Characteristics (Weight=FU2WT)

Statistic	Item Number	Estimate	SE	DEFF	DEFT
Working full time, Feb. '84	SE3A	65.49	0.61	1.80	1.34
Taking academic courses, Feb. '84	SE3C	32.63	0.89	3.84	1.96
Looking for work, Feb. '84	SE3I	6.45	0.37	2.47	1.57
Currently married	SE57	24.17	0.77	3.52	1.88
Have one or more children	SE66	16.68	0.72	3.65	1.91
Expect to have 3 or more children	SE65	34.10	0.77	2.76	1.66
Have served on military active duty	SE44	6.86	0.31	1.64	1.28
If in PSE '82-'84: Earned no degree	SE18I,J-20I,J	60.46	0.92	2.46	1.57
If in PSE '82-'84: Earned vocational degree	SE18I,J-20I,J	1.62	0.25	2.72	1.65
If in PSE '82-'84: Earned 4-year college degree	SE18I,J-20I,J	10.94	0.74	3.90	1.98
Enrolled in postsecondary education, Oct. '82	PSESOC82	42.82	0.97	4.16	2.04
Enrolled in postsecondary education, Oct. '83	PSESOC83	39.21	0.97	4.27	2.07
If employed: In clerical occupation, Oct. '83	SE47A-50A	27.24	1.00	2.18	1.48
Employed, Oct. '83	JOBSOC83	73.92	0.63	2.21	1.49
Have used pocket calculator	SE9A2-A4	91.88	0.31	1.36	1.17
Have used computer terminal	SE9B2-B4	55.78	0.97	3.85	1.96
Have used mainframe computer	SE9E2-E4	29.06	0.73	2.49	1.58
Have used video tape recorder	SE9F2-F4	54.75	0.92	3.39	1.84
Have used audio cassette deck	SE9H2-H4	89.08	0.52	2.84	1.69
Have used word processor	SE9I2-I4	12.55	0.52	2.58	1.60
Currently registered to vote	SE70	66.30	0.85	3.43	1.85
Have voted in election within last two years	SE71	46.80	0.88	3.28	1.81
Being successful in job very important	SE72A	82.00	0.55	2.17	1.47
Marrying the right person very important	SE72B	88.32	0.44	1.98	1.41
Having lots of money very important	SE72C	26.08	0.77	3.24	1.80
Being community leader very important	SE72F	10.21	0.44	2.22	1.49
Better opportunities for children very important	SE72G	67.05	0.84	3.34	1.83
Working to correct inequalities very important	SE72J	13.83	0.46	1.87	1.37
Having children very important	SE72K	49.69	0.92	3.57	1.89
Having leisure time very important	SE72L	73.93	0.72	2.84	1.69
Mean				2.87	1.68
Minimum				1.36	1.17
Maximum				4.27	2.07
Standard Deviation				0.78	0.24

3.8.3.3 Third Follow-Up

Standard errors, DEFFs, and DEFTs for 30 third follow-up survey items are shown in tables 3.8-5a and 3.8-5b. The mean DEFT for the sophomore cohort is 1.48 and that for the seniors is 1.51, which are close to (just slightly below) the mean DEFTs for the second follow-up. The variability of the DEFTs is much lower for the third follow-up than it was for the second follow-up. Indeed, the standard deviation of the DEFTs for the third follow-up items is calculated to be less than 0.1. One tentative explanation for the greatly reduced standard deviation of the estimated DEFTs is that the BRR estimates of standard error for individual items have larger coefficients of variation than do the Taylor Series estimates. Hence the observed variability of the BRR estimated DEFTs across the 30 items from the second follow-up is greater than the variability for the Taylor Series estimates from the third follow-up.

Table 3.8-5a
Estimated Percentages, Standard Errors, and Design Effects
in the Percentages of the Third Follow-Up Sophomores
Who Had Specified Characteristics (Weight = FU3WT)

Statistic	Item Number	Estimate	SE	DEFF	DEFT
Working at full or part-time job, Feb. '86	TY3A	67.47	0.58	2.02	1.42
Taking academic courses, Feb. '86	TY3C	26.84	0.63	2.68	1.64
Looking for work, Feb. '86	TY3I	9.58	0.36	2.05	1.43
Currently married	TY41	23.14	0.56	2.36	1.54
Currently divorced	TY41	1.85	0.17	2.00	1.42
Currently have one or more children	TY49	22.33	0.58	2.55	1.60
Expect to have three or more children	TY48	31.72	0.60	2.16	1.47
In PSE 84-86: Earned no degree	TY21I-22I	21.36	1.15	2.05	1.43
In PSE 84-86: Received vocational degree	TY21H-22H	27.98	1.42	2.60	1.61
In PSE 84-86: Received 4-year degree	TY21H-22H	31.36	1.35	2.22	1.49
Enrolled in PSE, Oct. '84	TY21C-22C	32.11	0.66	2.64	1.63
Enrolled in PSE, Oct. '85	TY21C-22C	28.36	0.61	2.45	1.56
In PSE 84-86: V. dissat. w/ career couns	TY28E	5.52	0.41	2.07	1.44
In PSE 84-86: Some sat. with curriculum	TY28I	50.41	0.84	1.78	1.33
Applied for grad. professional school	TY39	4.46	0.28	2.23	1.49
If employed 84-86, 1st job clerical	TY8A	24.83	0.53	1.88	1.37
Had any job between '84-'86	TY7	93.81	0.30	2.10	1.45
Did not receive unemployment-'85	TY17D85	86.41	0.82	2.16	1.47
Currently registered to vote	TY56	66.40	0.67	2.58	1.60
Have voted since 1984	TY57	51.13	0.70	2.47	1.57
Active participant in service org.	TY59K	1.49	0.13	1.40	1.18
Job security very important	TY16C	75.74	0.56	2.13	1.46
Success in job very important	TY68A	79.88	0.51	2.03	1.43
Marrying the right person very important	TY68B	86.36	0.44	2.14	1.46
Having lots of money very important	TY68C	22.68	0.52	1.94	1.39
Being a community leader very important	TY68F	6.65	0.31	1.97	1.40
Providing better opp. for kids very imp.	TY68G	69.65	0.65	2.54	1.59
Working to correct social inequalities very imp.	TY68J	11.02	0.42	2.32	1.52
Having children very important	TY68K	47.85	0.64	2.08	1.44
Having leisure time very important	TY68L	68.21	0.59	2.05	1.43
Mean				2.19	1.48
Minimum				1.40	1.18
Maximum				2.68	1.64
Standard Deviation				0.29	0.10

Table 3.8-5b
Estimated Percentages, Standard Errors and Design Effects
of the Third Follow-Up Seniors Who Had Specified Characteristics
(Weight = FU3WT)

Statistic	Item Number	Estimate	SE	DEFF	DEFT
Working at full or part-time job, Feb. '86	TE3A	77.50	0.57	1.98	1.41
Taking academic courses, Feb. '86	TE3C	11.32	0.48	2.37	1.54
Looking for work, Feb. '86	TE3I	8.02	0.39	2.13	1.46
Currently married	TE41	36.33	0.74	2.48	1.57
Currently divorced	TE41	2.78	0.25	2.46	1.57
Currently have one or more children	TE49	26.76	0.73	2.86	1.69
Expect to have three or more children	TE48	32.70	0.72	2.40	1.55
In PSE 84-86: Earned no degree	TE21I-22I	7.61	0.80	2.13	1.46
In PSE 84-86: Received vocational degree	TE21H-22H	18.44	1.20	2.23	1.49
In PSE 84-86: Received 4-year degree	TE21H-22H	67.13	1.44	2.20	1.48
Enrolled in PSE, Oct.'84	TE21C-22C	22.92	0.63	2.31	1.52
Enrolled in PSE, Oct.'85	TE21C-22C	17.01	0.58	2.45	1.57
In PSE 84-86: V. dissat. w/ career couns.	TE28E	6.55	0.57	2.20	1.48
In PSE 84-86: Some sat. with curriculum	TE28I	51.27	1.10	2.03	1.42
Applied for grad. professional school	TE39	6.22	0.38	2.50	1.58
If employed 84-86, 1st job clerical	TE8A	23.07	0.63	2.22	1.49
Had any job between 84-86	TE7	94.75	0.32	2.15	1.47
Did not receive unemployment-'85	TE17D85	82.71	1.08	2.35	1.53
Currently registered to vote	TE56	72.34	0.74	2.77	1.66
Have voted since 1984	TE57	60.66	0.77	2.50	1.58
Active participant in service org.	TE59K	2.02	0.20	1.93	1.39
Job security very important	TE16C	72.85	0.72	2.56	1.60
Success in job very important	TE68A	75.76	0.58	1.87	1.37
Marrying the right person very important	TE68B	87.06	0.50	2.23	1.49
Having lots of money very important	TE68C	20.95	0.61	2.26	1.50
Being a community leader very important	TE68F	5.35	0.31	1.93	1.39
Providing better opp. for kids very imp.	TE68G	65.69	0.73	2.35	1.53
Working to correct social inequalities very imp.	TE68J	9.73	0.44	2.20	1.48
Having children very important	TE68K	48.58	0.77	2.40	1.55
Having leisure time very important	TE68L	68.86	0.66	2.07	1.44
Mean				2.28	1.51
Minimum				1.87	1.37
Maximum				2.86	1.59
Standard Deviation				0.23	0.08

Tables 3.8-6a and 3.8-6b present selected distributional statistics for the DEFFs and DEFTs for the same 30 third follow-up items contained tables 3.8-5a and 3.8-5b, for the total population and for 11 selected domains.

With the exception of Hispanics, the DEFTs for subgroups were generally 10 percent smaller (1.5 versus 1.7) than that for the total population. The relative efficiency of the Hispanic subsample continued to be affected by the somewhat greater clustering of the Hispanic sample members in specific schools and relatively few geographical areas; the average DEFT for the Hispanic subsample was 2.0. Furthermore, the variability of the DEFTs for Hispanic subsample was twice that observed for most other subgroups (standard deviation of .4 versus less than .2). Thus, for analysis of third follow-up data from Hispanics, the use of a single generalized design effect to inflate simple random sample estimates of sampling errors involves a greater amount of approximation.

Table 3.8-6a
Distributional Statistics for Design Effects and Root Design Effects for 30 Survey Measures for 12 Domains, Sophomore Cohort

Domain		DEFF	DEFT
Total Population	Mean	2.19	1.48
	Minimum	1.40	1.18
	Maximum	2.68	1.64
	Standard Deviation	0.29	0.10
Hispanic	Mean	3.11	1.75
	Minimum	1.69	1.30
	Maximum	5.40	2.32
	Standard Deviation	0.76	0.21
Black	Mean	2.19	1.47
	Minimum	1.24	1.11
	Maximum	2.92	1.71
	Standard Deviation	0.36	0.13
Whites and others	Mean	1.92	1.38
	Minimum	1.32	1.15
	Maximum	2.38	1.54
	Standard Deviation	0.23	0.08
Female	Mean	2.06	1.43
	Minimum	1.51	1.23
	Maximum	2.42	1.55
	Standard Deviation	0.21	0.07
Male	Mean	2.07	1.44
	Minimum	1.37	1.17
	Maximum	2.59	1.61
	Standard Deviation	0.24	0.09
Lowest quartile SES	Mean	1.83	1.35
	Minimum	1.22	1.10
	Maximum	2.31	1.52
	Standard Deviation	0.26	0.10

Table 3.8-6a
continued

Domain		DEFF	DEFT
Middle quartiles SES	Mean	2.06	1.43
	Minimum	1.43	1.20
	Maximum	2.41	1.55
	Standard Deviation	0.25	0.09
Highest quartile SES	Mean	1.92	1.38
	Minimum	1.31	1.14
	Maximum	2.48	1.57
	Standard Deviation	0.28	0.10
Received no PSE	Mean	1.98	1.40
	Minimum	1.25	1.12
	Maximum	2.82	1.68
	Standard Deviation	0.34	0.12
Received some PSE	Mean	2.09	1.44
	Minimum	1.46	1.21
	Maximum	2.53	1.59
	Standard Deviation	0.19	0.07
Four-year degree	Mean	1.63	1.26
	Minimum	0.16	0.39
	Maximum	2.14	1.46
	Standard Deviation	0.42	0.21

Table 3.8-6b
Distributional Statistics for Design Effects and Root Design Effects for 30 Survey Measures for 12 Domains, Senior Cohort

Domain		DEFF	DEFT
Total population	Mean	2.28	1.51
	Minimum	1.87	1.37
	Maximum	2.86	1.69
	Standard Deviation	0.23	0.08
Hispanics	Mean	4.06	2.00
	Minimum	1.54	1.24
	Maximum	5.75	2.40
	Standard Deviation	0.93	0.25
Blacks	Mean	2.40	1.54
	Minimum	1.36	1.17
	Maximum	4.63	2.15
	Standard Deviation	0.61	0.18
Whites and others	Mean	1.70	1.30
	Minimum	1.38	1.17
	Maximum	2.06	1.43
	Standard Deviation	0.15	0.06
Female	Mean	2.26	1.50
	Minimum	1.83	1.35
	Maximum	2.59	1.61
	Standard Deviation	0.17	0.06
Male	Mean	2.13	1.46
	Minimum	1.76	1.33
	Maximum	2.65	1.63
	Standard Deviation	0.20	0.07
Bottom SES	Mean	2.31	1.52
	Minimum	1.61	1.27
	Maximum	3.04	1.74
	Standard Deviation	0.36	0.12

Table 3.8-6b
continued

Domain		DEFF	DEFT
Middle SES	Mean	2.02	1.42
	Minimum	1.76	1.33
	Maximum	2.35	1.53
	Standard Deviation	0.16	0.06
Top SES	Mean	1.71	1.31
	Minimum	1.46	1.21
	Maximum	1.97	1.40
	Standard Deviation	0.14	0.05
No PSE attendance	Mean	1.99	1.41
	Minimum	1.59	1.26
	Maximum	2.34	1.53
	Standard Deviation	0.17	0.06
Some PSE attendance	Mean	2.25	1.50
	Minimum	1.73	1.32
	Maximum	2.72	1.65
	Standard Deviation	0.23	0.07
Four-Year degree	Mean	2.07	1.44
	Minimum	1.79	1.34
	Maximum	2.47	1.57
	Standard Deviation	0.17	0.06

For both cohorts, the mean DEFTs for all the subgroups except Hispanics was comparable to or smaller than the mean DEFT for all domains combined (1.5). The mean DEFT for Hispanics, 1.75 for the sophomores and 2.0 for the seniors, is somewhat higher. The variability of the DEFT for the Hispanic sample across different items was also somewhat larger than for the other domains for the third follow-up, but the variability by itself was not that great, as the standard deviation was only 0.21 for sophomores and 0.25 for seniors. The standard deviation for Hispanic sophomores is not much greater than the standard deviation of the DEFTs for all the domains combined in the second follow-up survey of the sophomore cohort, and the standard deviation for the Hispanic seniors is essentially the same as the standard deviation of the DEFTs for all the domains combined in the second follow-up.

The preceding data and discussion lead to the conclusion that the analyst seeking an appropriate value to use for a root design effect to inflate simple random sampling-based estimates of sampling errors for either cohort may simply use 1.5. If the statistic is based largely on the Hispanic subsample, a root design effect of 1.75 for sophomores and 2.0 for seniors will be more appropriate. If the statistic is more complex than a simple proportion or mean, the DEFTs just recommended will probably be conservative in that they will tend to overestimate the true standard errors.

NOTES TO CHAPTER 3

[1]For further details on the base year sample design see Frankel, M.; Kohnke, L.; Buonanno, D.; and Tourangeau, R. (1981), High School and Beyond Sample Design Report. Chicago: NORC.

[2]The sampling frame, defined as the universe of high schools in the United States, was obtained from the 1978 list of U.S. elementary and secondary schools of the Curriculum Information Center, a private firm. This was supplemented by the NCES lists of public and private elementary and secondary schools. Information on racial composition was obtained from the 1976 and 1972 DHEW/Office of Civil Rights Secondary School Civil Rights Computer File of public schools and the National Catholic Education Association's list of Catholic schools. Any school listed in any of these files that contained a tenth grade, a twelfth grade, or both was made part of the frame.

[3]Apart from substitution for schools that refused, there were a number of schools in the originally-drawn sample that were "out-of-scope," failing to fit the criteria for inclusion in the sample. The sample was then augmented through selection of an additional school for each out-of-scope school, within major strata. Most of the out-of-scope schools were area vocational schools, having no enrollment of their own, although they were listed in the frame as having enrollments.

[4]Tourangeau, R.; McWilliams, H.; Jones, C.; Frankel, M.; and O'Brien, F. (1983), High School and Beyond First Follow-Up (1982) Sample Design Report. Chicago: NORC.

[5]For the elder cohort see Tables 2.6 and 2.7 of Tourangeau et al. (1983), or Table 3.2-1 of Sebring et al. (1987), High School and Beyond 1980 Senior Cohort Third Follow-Up (1986) Data File User's Manual, Vol. 1. For the younger cohort see Tables 2.4-1 through 2.4-4 of C. Jones and B.D. Spencer (1985), High School and Beyond Second Follow-Up (1984) Sample Design Report Chicago, NORC) or Tables 3.3-1 through 3.3-4 of Sebring et al. (1987), High School and Beyond 1980 Sophomore Cohort Third Follow-Up (1986) Data File User's Manual, Vol.1. Washington, D.C.: Center for Education Statistics.

[6]See Jones and Spencer (1985), chapter 3.

[7]See Cochran, W. G. (1977), Sampling Techniques, Third Ed. New York: Wiley. p. 361.

[8]See p. A-4 of Tourangeau, R.; McWilliams, H.; Jones, C.; Frankel, M.; and O'Brien, F. (1983), High School and Beyond First Follow-Up (1982) Sample Design Report. Chicago: NORC.

[9]See Frankel et al. (1981), p. 93.

[10]See Frankel et al. (1981), p. 124.

[11]See Tourangeau et al. (1983), ch. 4.

[12]See Tourangeau et al. (1983), ch. 4, tables 4.1 and 4.3.

[13]See Frankel et al. (1981), Tourangeau et al. (1983), and Jones, C. and Spencer, B. D. (1985).

[14]Kish, L. and Frankel, M. (1974), "Inference From Complex Samples," Journal of the Royal Statistical Society: Series B (Methodological), 36:2-37.

[15]Kish, L. (1965), Survey Sampling. New York: John Wiley, 206-208.

[16]Hansen, M.; Hurwitz, W.; and Madow, W. (1953), Sample Survey Methods and Theory, vol. II. New York: John Wiley.

[17]Deming, W. E. (1956), "On Simplification of Sampling Design Through Replication With Equal Probabilities and Without Stages," Journal of the American Statistical Association, 31:24-53.

[18]Frankel, M. (1971), Inference from Survey Samples: An Empirical Investigation. Ann Arbor: Institute for Social Research, University of Michigan, p. 35.

[19]Frankel (1971).

[20]Frankel et al. (1981), chapter 3.

[21]The BRR program is available through CES. The public use data tapes include the computing strata and pseudo-primary selection codes.

[22]Frankel (1971).

[23]Tourangeau et al. (1983), Chapter 5, Tables 5.1, 5.2.

[24]Frankel et al. (1981), p. A-4.

4. DATA COLLECTION

4.1 Overview

To date, High School and Beyond has compiled data from five primary sources: school administrators, teachers, students, students' administrative records (transcripts), and parents of selected students. In the base year (1980) survey, 1,015 secondary schools served as the primary sampling units for the study. The principal or headmaster of each school was asked to complete a school questionnaire and to provide materials essential for the sampling of students in the tenth and twelfth grades.

Samples of approximately 36 students in each grade were asked to fill out a Student Identification Pages (SIP) booklet (which included several items on the use of non-English languages as well as confidential identifying information) and a student questionnaire, and to take a timed Cognitive (achievement) Test. Teachers of selected students were asked to fill out brief Teacher Comment Forms containing 10 items on student traits and behavior.

During the fall following the base year survey, data were collected from over 7,100 parents of student respondents (roughly half from each student cohort). These data focused primarily on parents' ability to finance postsecondary education for their sons and daughters.

The first follow-up survey in the spring of 1982 added a second wave of data from 1980 sophomores and seniors. Seniors filled out a mailback questionnaire and most of the sophomores completed questionnaires and tests in their school buildings. School administrators were again asked to complete a school questionnaire and to provide information on the secondary level course offerings and enrollments for their institutions. In the fall of 1982, high school transcripts were requested for a probability sample of approximately 18,500 members of the 1980 sophomore cohort. Data collection activities for the base year and first follow-up surveys are described in detail in the High School and Beyond Information for Users, Base Year (1980), the High School and Beyond First Follow-Up (1982) Final Technical Report, and the first follow-up Data File User's Manual for each cohort.

Data collection procedures for both cohorts in the second follow-up survey were similar to those used in the first follow-up for the senior cohort, and began with mailing an address update letter to sample members of both HS&B cohorts during November 1983. The address update packet included a cover letter, address update form, return envelope, and newsletter. In December 1983, trained telephone interviewers at NORC's Central Office began locating activities for the cases whose letters were returned as undeliverable. By the time the questionnaires were mailed, addresses had been found for all but about 300 survey members whose locating letters had been returned by the post office as undeliverable. These 300 cases then were sent to field interviewers for further locating attempts.

Second follow-up questionnaires were mailed to members of both cohorts between February 13 and 17, 1984. Along with the

questionnaire, respondents received a cover letter, an instruction sheet, a place marker, a pencil, a response incentive check for five dollars, and an addressed, prepaid envelope for returning the questionnaire to NORC. The final number of completed questionnaires for the sophomore cohort was 13,682 or 92 percent of the sample. The final number of completed questionnaires for the 1980 seniors was 10,925 or 91.1 percent of the sample (excluding non-sampled co-twins). Details of the data collection activities are described in the Second Follow-Up (1984) Data File User's Manual for each cohort.

4.2 Third Follow-Up Survey Data Collection

In October 1985, NORC mailed a locating packet to members of the HS&B sample, excluding the deceased, the mentally incapacitated, and participants who had refused participation or could not be located during the second follow-up survey. The packet included a report about previous surveys, a letter of introduction, and an address form with space to update address information (see appendix B). NORC received a total of 10,346 (40 percent) responses to the mailing, with 6,593 updated addresses and 3,753 address verifications. These were used to make corrections on the name and address file.

Locating packets that were returned as undeliverable were routed to an in-house telephone locating shop. Of 1,925 undeliverables, telephone interviewers were able to find addresses for 1,454, or 70 percent. The remainder were eventually sent to the field staff for more intensive locating.

Cases that had been declared unlocatable (1,017) during the second follow-up were sent directly to the field staff for locating. Of the 1,488 cases assigned to the field staff (these 1,017 plus the 471 for whom addresses could not be obtained by telephone), updated addresses were obtained for 418 (28 percent) respondents. These addresses, as well as forwarding addresses from the post office, were also entered on the name and address file.

Data collection began in the last week of February 1986 and continued through mid-September. The third follow-up was the first time that sophomores and seniors received the same questionnaire and for administrative purposes could be treated as one sample. Questionnaire packages were mailed to 26,820 respondents whose addresses had been updated during the prefield locating period. Packages contained questionnaires, a cover letter, a $5 response incentive check, a pencil, and a return envelope. Survey materials were mailed first class with "Address Correction Requested" specified on envelopes.

By the end of the third week, 37 percent of the total sample had completed and returned their questionnaires. Those respondents who had not returned their questionnaires by the third week were sent follow-up postcards. The purpose of the postcards was to thank those who had completed and returned their questionnaires and to encourage the others to send them in promptly.

Telephone prompting of those who had not sent in questionnaires began in early April, approximately two weeks after postcards were mailed. NORC field interviewers contacted respondents to

urge them to complete and return questionnaires. Offers to remail survey materials were made to those who reported they had not received questionnaires or had misplaced them.

The field staff continued to contact respondents and encourage the self-administration of questionnaires. Telephone and in-person interviews began in June, during week fourteen of the field period. At this time 16,270, or 60.7 percent, of the questionnaires had been received. The number of cases completed with interviewer assistance began to increase in July and this soon became the dominant method of administration; this continued through mid-September.

After twenty-seven weeks, data collection ended with a final completion rate of 89.5 percent, or 23,993 completed questionnaires. The final completion rate for sophomores was 90.6 percent, or 13,425 completed questionnaires. The majority of questionnaires were self-administered (66 percent of the sample); 19 percent were completed by telephone, and 6 percent were completed as in-person interviews. Table 4.2-1 displays the final completion rates for the sophomore sample by sampling strata.

The final completion rate for the seniors was 88 percent, or 10,536 questionnaires. The method of administration was similar to that of the sophomore cohort: 66 percent of the sample completed the questionnaire on their own; 16 percent required a telephone interview; and 5 percent were interviewed in-person. Table 4.2-2 shows the response rate by sampling strata.

Table 4.2-1
Data Collection for the Sophomore Cohort
by Sampling Strata, Third Follow-Up

Sampling Stratum Selections	Initial Cases	Completed Rate	Refusals	Other*	Response
Cuban/Puerto Rican	989	828	20	141	83.7
Hispanic-High Achievement	886	843	11	32	95.1
Hispanic-Other	1,375	1,223	33	119	88.9
Black-High Achievement	741	660	20	61	89.1
Black-Others	1,295	1,123	25	147	86.7
Asian/Pacific Islander	431	386	6	39	89.6
American Indian/ Alaskan	291	251	7	33	86.3
White-Low SES/ High Achievement	388	360	6	22	92.8
White-Others	8,429	7,751	185	493	92.0
Total	14,825	13,425	313	1,087	90.6

* Included under "other" are cases that were not available, not located, deceased, or genuine other.

Table 4.2-2
Data Collection Results for the Senior Cohort
by Sampling Strata, Third Follow-Up

Sampling Stratum	Initial Selections	Completed Cases	Refusals	Other*	Response Rate
Base Year Nonrespondents	495	386	20	89	78%
Hispanic - High Achievement	659	587	9	63	89%
Hispanic - Other	1,841	1,557	61	223	85%
Black - High Achievement	554	470	16	68	85%
Black - Others	2,446	2,100	54	293	86%
Asian/Pacific Islander	554	475	18	61	86%
American Indian	208	183	8	17	88%
White - Low SES/ High Achievement	516	478	16	21	93%
White - Others	4,722	4,300	126	296	91%
Total	11,995	10,536	328	1,131	88%

* Included under "other" are cases that were not available, not located, deceased, or genuine other.

5. DATA CONTROL AND PREPARATION

Data control and preparation refers to a series of procedures governing the preparation of completed questionnaire data for conversion to machine-readable form by optical scanning. The process involves monitoring the receipt of completed documents from respondents and the field interviewing staff; editing completed instruments for missing information and proper adherence to routing or skip instructions; assigning numeric codes to responses such as schools attended, occupations, military specialties, and so on; retrieving missing information and resolving inconsistencies in responses to specified questions; and validating a percentage of the interviews conducted in person or by telephone.

5.1 Base Year Procedures

The procedures for data control and preparation were significantly different in the base year compared to the follow-up surveys. Since the base year student instruments were less complex than the follow-up student questionnaires (for example, they employed only one skip pattern in the senior questionnaire and required no open-ended coding), the completed documents were sent by Survey Representatives directly from the schools to the scanning subcontractor. The scanning computer was programmed to perform the critical item edit (described below) and to produce reports that identified the critical items with missing information for each case. The reports were sent to NORC, where data retrieval was completed.

The base year school questionnaires were converted to machine-readable form by the conventional key-to-disk method at NORC. In the base year, most school questionnaires were completed and returned to NORC before the scheduled Survey Day at the school; the remainder were collected by Survey Representatives during their Survey Day visits. This sequence permitted collection of missing school questionnaire data for most institutions during the course of scheduled survey activities, obviating the need for additional contact with school officials.

The base year parent questionnaires were also converted to machine-readable form by the key-to-disk method at NORC.

5.2 First Follow-Up Procedures

Procedures used during the first follow-up survey differed considerably from those of the base year survey. Because of the greater number and complexity of the survey instruments themselves, they were returned to NORC for editing, coding, and data retrieval prior to shipping the instruments to the optical scanner. Details of the first follow-up survey procedures are described in the High School and Beyond First Follow-Up (1982) Technical Report and the High School and Beyond First Follow-Up (1982) Data File User's Manual for each cohort.

5.3 Second Follow-Up Procedures

Second follow-up procedures mirrored those of the first follow-up. Questionnaires were returned to NORC, where editing and coding were carried out. Documents were then sent to the optical scanning contractor for conversion to machine-readable form. These procedures are described in the High School and Beyond Second Follow-Up (1984) Technical Report and the High School and Beyond Second Follow-Up (1984) Data File User's Manual for each cohort.

5.4 Third Follow-Up Procedures

5.4.1 Shipping and Receiving Documents

Respondents and field interviewers mailed questionnaires to NORC's central office in Chicago. Arriving documents were sorted according to disposition codes that identified completed cases by method of administration (i.e., self-administered, telephone interview, or personal interview). These disposition codes were then entered into NORC's Survey Management System (SMS).

At the time of entry the SMS generated and automatically entered the date that each case was received. As cases were routed through the data preparation system, an additional in-house update was automatically made to the SMS record file as each editing, coding, and retrieval procedure was completed. A final entry into the SMS record was made when the cases were ready to be processed for shipment to the scanning contractor, Questar Data Systems.

Preparing cases for shipment began with a check of the case ID numbers against a list of completed cases generated by the SMS. If a case appeared on the list, it was considered to be ready for shipment. As in the prior follow-up surveys, a detailed transmittal form, listing every batch, and thus every case, contained in a box, accompanied the box to the scanning firm. Additional copies of these transmittal forms were kept by NORC.

5.4.2 Coding and Computer-Assisted Data Entry

Coding. A staff of four coders processed 23,961 student questionnaires (from both cohorts). Coders were trained for two days, after which 100 percent of their first 20 cases were reviewed. Coders whose work did not prove to be satisfactory were reassigned or retrained.

For this follow-up, coders were not responsible for editing responses. All editing was done using NORC'S Computer-Assisted Data Entry program (CADE, see below). Coders were responsible for assigning values to the open-ended questions concerning occupation, industry, postsecondary school, and field of study. Occupation and industry codes were obtained from the U.S. Department of Commerce, Bureau of the Census's Classified Index of Industries and Occupations, 1970, and Alphabetical Index of Industries and Occupations, 1970, the same sources that were used in the previous follow-ups. Coding the names of the postsecondary schools attended by the respondents was accomplished

using the HECIS and Postsecondary Career School Survey Files provided by CES. This file is the result of merging HECIS codes from the NCES Education Directory, Colleges and Universities, published in the years 1981-1982 through 1985-1986, and the NCES Directory of Postsecondary Schools with Occupational Programs, 1979 and 1981. As in the preceding follow-ups, codes were created for schools that did not appear in these directories. Codes beginning with 800,000 were assigned to unlisted foreign schools, and codes beginning with 850,000 were assigned to unlisted business and trade schools. Field-of-study information was coded using A Classification of Instructional Programs (CIP), as in the second follow-up.

In the third follow-up, for the first time, all codes were loaded into a computer program for more efficient access. Coders typed in a given response, and the program displayed the corresponding numerical code. This computerized coding system proved to be much faster and more accurate than the use of manual look-ups. Coders averaged approximately 3.5 minutes per case. For further details about the total data entry time for each case, see the description of CADE below.

Computer-Assisted Data Entry (CADE). The third follow-up survey marked the first time in the history of HS&B that numeric and critical items were key-entered by individual operators rather than scanned. Using a Computer Assisted Data Entry program (CADE), operators were able to combine data entry with the traditional editing procedures.

The CADE system, an offshoot of CATI (Computer-Assisted Telephone Interviewing), was designed to step question-by-question through critical and numeric items, skipping over questions that were slated for scanning and questions that were legitimately skipped because of a response to a filter question. Ranges were set for each question, preventing the accidental entry of illegitimate responses.

The CADE program accepted reserved codes to indicate a missing or illegitimate response. These codes were then converted to the standard reserved codes used in previous waves. To lessen the possibility of error, the CADE program required double entry of reserved codes on all critical questions.

Twelve CADE operators were trained for two days. After a 100 percent check of their first 20 cases, operators not meeting quality control standards were either terminated or retrained, depending on the severity of the problem. After the initial training period, a high percentage of cases continued to be checked until each operator met standards. Eight of the 12 trainees were CADE operators throughout the study. The other four learned both CADE and coding procedures (see Coding).

CADE operators were responsible for the critical item edit. Those critical items that did not pass the edit were flagged, both manually and by the CADE system, for retrieval. Besides critical items, numeric items, open-ended items, and filter items were designated for CADE entry. These items have traditionally caused difficulty for respondents. Particularly difficult have been numeric items, where respondents have frequently not right-justified values or filled in grids correctly. Because these items were directly entered

by operators who were inspecting each questionnaire, respondent errors could be discovered and resolved on an individual basis rather than through the more aggregate procedures of machine editing.

After a missing critical item was retrieved by telephone interviewers, the questionnaire was returned to CADE for entry of the retrieved data. After completing "RE-CADE," questionnaires were checked and boxed for shipment to the scanning firm.

Processing questionnaires through both coding and CADE averaged 11.5 minutes per case--3.6 minutes for coding and 7.9 minutes for CADE. In addition, cases requiring retrieval and RE-CADE required an additional 3.5 minutes of processing. Across all cases, the combined time of coding, CADE, and RE-CADE was 12.8 minutes a case. Although coding and CADE during the third follow-up required more time per case than did editing and coding during the second follow-up, this was offset by savings in machine editing, and ultimately in the production of a cleaner data set.

6. DATA PROCESSING

Data processing activities span the entire length of each of the HS&B surveys, beginning with pretest activities, continuing with maintenance of the respondent locator database, and concluding with machine editing and the preparation of public use data tapes. Data processing activities in the base year and in the first through third follow-ups are discussed together in this section.

6.1 Maintenance of Longitudinal Locator Data Bases

The locator data base maintains the most up-to-date name and address information available for each sample member as well as information from previous waves. During each wave, respondents have completed a locator page separate from the questionnaire, which requested their names and addresses, their spouses' names, their parents' names and address(es), and the names, addresses, and relationships of two other people who are likely to stay informed of the respondents' whereabouts. The locator page also requested information regarding respondent birth date, sex, and social security number. To ensure confidentiality, all locating information is stored on secure files which are separate from the questionnaire data.

Since three surveys have been completed and since birth date and sex are also provided elsewhere in each questionnaire, several independent sources of locating and identifying information are generally available. This information is necessary for locating hard-to-find respondents, for verifying that a given ID number refers to the same individual across waves, and for constructing corroborated birthdate and sex composites.

6.2 Receipt Control Procedures

For the first three waves (base year through second follow-up), the NORC Automated Survey System (NASS) was used to track survey activities. This system houses a data file for each school in the base year and first follow-up surveys, and for each cohort in all waves, that contains the respondent ID number, disposition codes, and other information. During the base year, the school NASS file was used to generate weekly summary reports that tracked refusal rates and patterns, completed survey days or delays, and the receipt of school-level documents (i.e., school questionnaires). NASS also generated customized calendars of scheduled school survey days for each NORC Survey Representative.

For the fourth wave (third follow-up), the Survey Management System (SMS) was used. This micro-based system is functionally equivalent to NASS but has some additional capabilities. Because it interfaces with CADE, it was able to update internal dispositions automatically and to generate reports on the progress of the documents as they were processed.

Weekly summary reports on the receipt of sophomore and senior questionnaires were produced during the base year and each follow-up. Data control disposition codes were added to the NASS/SMS files, making

it possible to track the internal movement of instruments through mail receipt, editing, data retrieval, validation, CADE and shipment for optical scanning. The respondent-level NASS/SMS files were linked with the longitudinal locator database to produce interviewer assignment logs, to trace nonrespondents as of a certain date, and to produce reminder postcards. The NASS/SMS also generated the transmittal materials for shipping the prepared instruments to the optical scanning subcontractor.

At the end of each data collection period for the first and second follow-ups, a reconciliation between the files provided an accurate count of the number of survey participants and documents received. The reconciliation used three types of checks: check digits derived from a fixed mathematical formula that easily identified misread or miscopied student ID numbers; a comparison of the respondent's birth date, sex, and other identifying information against base year and first follow-up data; and a comparison of field transmittal forms against what the NASS records indicated had been returned from the field. All discrepancies were reported for review and resolution.

Reconciliation for the third follow-up was somewhat different owing to the fact that data were converted by both CADE and optical scanning. In order to reconcile third follow-up data with prior waves, every ID was checked against a master list before data were entered in CADE. Once CADE and scanning operations were complete, NORC matched the Questar tape with the CADE data file and reported any discrepancies. Each case was examined individually to determine whether an ID had been miskeyed. Although all questionnaires had been precoded with the ID for optical scanning, IDs were entered by hand for questionnaires that had been remailed and questionnaires that had been completed by interviewers. Consequently, errors in IDs were possible. All discrepancies were reported and resolved.

6.3 Optical Scanning

The student questionnaires were optically scanned using equipment that read darkened ovals or marks on the page. For each survey the scanning subcontractor conducted extensive tests and checks of the machine's ability to correctly read the darkened ovals. Adjustments were made to the mark-sense threshold as required. Finally, questionnaires were marked up and scanned. The results were then compared with hard copy to verify that satisfactory data conversion was being achieved.

In the base year, student instruments were limited to two versions (one per cohort) and the instruments contained only one logical branch or skip sequence for respondents to follow. Because of this simplicity, it was efficient for the optical scanning contractor to perform the critical item edit and convert blank fields to missing value codes at the time of completing the data conversion. The conversion of blanks to missing values was done according to instructions from NORC.

The optical scanning contractor for the first three waves was National Computer Systems (NCS). (In the base year the company was

called Westinghouse Learning Corporation, and during the first follow-up, its name was changed to Westinghouse Information Services.)

For all of the first three surveys, NCS created separate data files for the two cohorts. To check the accuracy of data conversion, NORC conducted an audit of a sample of cases, comparing the scanned and machine-edited data files with the hard-copy questionnaires.

In the third follow-up there was a single instrument for both cohorts. As discussed elsewhere, a portion of the instrument was designed for CADE, while the rest was prepared for optical scanning. All major skip items and all critical items were entered in CADE. Missing values were converted to blanks by the optical scanning contractor for the third follow-up, Questar Data Systems Inc. During machine editing at NORC, blanks were changed to missing value codes. Because there was only one instrument in the third follow-up, only one data file was prepared for the two cohorts. To check the accuracy of data conversion NORC audited a sample of 100 cases. Final data were compared item by item to hard-copy questionnaires, and procedures were modified until accuracy was attained.

6.4 Machine Editing

In the base year, machine editing was limited to the examination of each data field for out-of-range values. Very few stray codes were discovered; appropriate missing value codes were assigned to these fields.

As noted in the section on optical scanning (6.3), base year questionnaires were designed so that only one explicit skip instruction appeared in the senior questionnaire (seniors not going on to college did not complete the last section on college education). There were no skip instructions in the sophomore questionnaire. Where two or more questions were related, the items following an implicit screening or filter question contained response options for those who were screened out by the filter question. No inter-item consistency checks were carried out on base year data files between the implicit filter questions and the related (dependent) items.

In the first and second follow-ups, several sections in the questionnaire required respondents to follow skip instructions. A case-by-case inspection of logical inconsistencies and stray codes was impractical owing to the sheer number of cases and the fact that the pages of the questionnaires had been cut apart in preparation for data entry by optical scanning. Consequently, programs were written to automatically perform the inter-item machine-edit checks. The tasks performed included: resolving inconsistencies between filter and dependent questions, supplying the appropriate missing data codes for questions left blank, detecting illegal codes and converting them to missing data codes, and generating a report on the quality of the data as measured by the incidence of correctly and incorrectly answered fields and correctly or incorrectly skipped fields.

Inconsistencies between filter and dependent questions were resolved in consultation with CES staff. In most instances, dependent questions that conflicted with the skip instructions of a filter question contained data that, although possibly valid, were

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superfluous. For instance, respondents sometimes indicate "no" to the filter item and then continue to answer "no" to subsequent dependent questions. Data retrieval verified that filter questions were generally answered correctly, and dependent questions that should have been skipped were often inadvertently answered because they seemed to apply. During the machine-editing process, inappropriate responses were expunged by turning them into blanks.

After improperly answered questions were converted to blanks, the student data were passed to a program that supplied the appropriate missing-data codes for blank questions. The program converted questions left blank according to several criteria. If a previous question had been answered in a way that required that the current question be skipped, a "legitimate skip" code was supplied. If not, a "missing data" code was supplied, except in the case of critical questions. Critical questions with missing data were flagged during data preparation, and attempts were made to obtain the information by telephone. If the respondent specifically refused to answer a question during the call-back, a special scannable oval was marked. Critical questions marked in this way were assigned a special missing data code of "refused." Otherwise, critical questions were treated in the same manner as others. Finally, additional missing value codes for multiple-coded questions were supplied by the scanner.

Detection of out-of-range codes was completed during scanning for all questions except those permitting an open-ended response. For the hand-coded, open-ended questions (such as the three-digit occupation and industry codes and the six-digit college and field-of-study codes), the data were matched by computer against lists of valid codes, and invalid codes were converted to missing values. The numbers of invalid codes detected were negligible.

For measuring data quality, the machine-edit programs produced bar graphs that displayed the frequencies for the different situations recognized by the programs: questions properly answered, questions properly skipped (the "legitimate skip" code), questions skipped in error ("missing data" code), and questions answered in error.

The treatment of inappropriately answered items (i.e., those a respondent was instructed to skip) relied on the results of the critical item editing procedure. With few exceptions, screening or filter questions were designated as critical items. When respondents were inconsistent in answering these items, either by responding to items they were instructed to skip or by failing to answer the dependent questions related to a filter item, the case was classified as an edit failure. As discussed under Retrieval(5.3.3), telephone calls were used to obtain responses to items skipped in error. The results of these calls demonstrated unambiguously that inappropriate answers to filter-dependent items were universally caused by respondents' failure to comply with the routing instructions of the filter questions. Rather than skipping to the designated target question to resume their responses, these individuals attempted to answer each filter-dependent question that appeared to offer a reasonably suitable response category. On the strength of these findings, all filter-dependent responses entered in error were

converted to the proper missing data values (i.e., the "legitimate skip" code).

During the third follow-up, CADE carried out many of the steps that normally occur during machine editing. The system enforced skip patterns, range checking, and appropriate use of reserved codes. This strategy allowed operators to deal with problems or inconsistencies at the point where they still had the document in hand and consequently had the most information available, so that the most informed decision could be taken (see section 5.4.2).

For the items which were scanned, the same machine editing steps as those used in prior follow-ups were implemented. Since most of the filter questions were CADE designated items, there were few filter-dependent inconsistencies to be handled in machine editing.

6.5 Data File Preparation

In the base year, data for the two cohorts were combined into a single data set. To facilitate this, NORC reformatted the tape so that questions identical in the two versions of the questionnaire occupied the same tape positions in each record. In general, the data for both cohorts followed the order of the senior questionnaire. Items unique to the sophomore instrument were interspersed among the senior items so that sophomore data appeared in about the same order as in the questionnaire. Also, whenever necessary, the sophomore response category values were recoded to match those for the senior cohort.

Data for the first follow-up were merged with base year data. A merged data set was created for each cohort and placed on its own tape. After the second follow-up was completed, these data were merged with the base year and first follow-up files. Similarly, third follow-up data were merged with base year and first and second follow-ups.

A final task of each survey was the creation of composite variables. The base year composite variables were constructed to be compatible with those contained on the public use file for the National Longitudinal Study of the High School Class of 1972 (NLS-72). These composite variables and the ones created after the first, second, and third follow-ups are discussed in chapter below.

6.6 Composite Variables

The base year composite variables were constructed to be compatible with those contained on the public use data file for the National Longitudinal Study of the High School Class of 1972 (NLS-72). These composite variables and those created after the first and second follow-ups are described in this section.

Composite variables were constructed using responses from two or more questionnaire items. In some cases, composites were constructed from dozens of variables or from variables from different databases, such as the Sophomore Cohort High School Transcript Study. Most of the composite variables can be used as classification variables or independent variables in data analysis. For this reason, composite variables may be referred to as classification variables in this and other CES documents.

6.6.1 Demographic Variables

Many of the composite variables constructed were respondent demographic characteristics. SEX, SEXCOMP, RACE, and RACE2 are all examples. Since there were several sources of information on sex from the base year through the first follow-up, SEX was constructed to produce a variable with the least missing data and most agreement (respondents occasionally report this information inconsistently). SEXCOMP is simply a copy of the same variable within the second follow-up section. RACE and RACE2 also were constructed from several sources of information. Each one defines racial categories, especially Hispanics, a little differently (see appendix C of the High School and Beyond Third Follow-Up (1986) Data File User's Manual for either sophomores or seniors).

For seniors, socioeconomic status can be determined from BYSES, which was constructed from base year data using father's occupation, father's education, mother's education, family income, and material possessions in the household. BYSESQ is simply the SES quartile to which the respondent belongs, and SESQ is a copy of the same variables in the third follow-up section.

For sophomores, socioeconomic status can be determined from BYSES, BYSESQ, FUSES, and FUSESQ. BYSES and FUSES were constructed from base year and first follow-up data respectively, using father's occupation, father's education, mother's education, family income, and material possessions in the household. BYSESQ and FUSESQ are simply the SES quartile to which the respondent belongs. If FUSES was missing, BYSES was used. SESQ is the quartile coding of FUSES and is located in the third follow-up segment of the data file.

The SES composite has five components (described below). For each case, the composite score is an average of all the non-missing components. If one component only, or none, is non-missing, the SES composite is assigned a missing value.

The first component is father's occupation, recoded into the Duncan SEI scale by assigning mean SEI scores to the categories of the High School and Beyond occupation question. For both cohorts in the base year survey, the source variable was BB038; for sophomores in the first follow-up survey the source variable was FY53A. The recode, taken from NLS-72, assigns SEI scores as follows:

02 = 56.58	08 = missing	14 = 54.42
03 = 27.41	09 = 19.18	15 = 70.21
04 = 28.00	10 = 70.21	16 = 15.90
05 = missing	11 = 70.21	17 = 16.40
06 = 7.33	12 = 49.70	18 = missing
07 = 67.73	13 = 38.00	19 = missing

The second and third components are father's and mother's education, recoded as in NLS-72. The variables were, respectively, BB039 and BB042 (base year) and FY55 and FY56 in the first follow-up in-school questionnaire. These were recoded as follows:

02	= 1
03	= 2
04, 05, 06, 07	= 3
08	= 4
09, 10	= 5
11	= missing

The fourth component is family income, recoded to be linear in dollars, as in NLS-72. Thus category midpoints were assigned to the codes of BB101 and FY111, in thousands of dollars. (The top category, $50,000 or more, was given a "midpoint" of $60,000.)

The final component is a scale of eight household possession items, BB104B to BB104I and FY113B TO FY113I. Each of these was standardized; then as many of them as were non-missing were averaged to provide this last component.

Each of the five components was standardized separately, and then the non-missing components were averaged to form the raw SES score.

Other demographic composite variables include high school region (HSREGION), urbanicity of the respondent's high school (HSURBAN), community type (COMTYPE), whether the respondent has children (CHLDFLAG), the language spoken in the home at the time of the base year survey (HOMELANG), family size (FAMSIZE), family income (FAMINC), the highest level of education reported by either of the respondent's parents (PAREDUC), and whether the respondent's parents owned or rented their home (HOMEOWN).

6.6.2 Educational Variables

6.6.2.1 Educational Variables--Senior Cohort

A composite score (BYTEST) covering the base year tests in vocabulary, reading, and mathematics was constructed for the first follow-up data tape. BYTESTQ is the quartile distribution of BYTEST. For the convenience of the user, TESTQ, which is a copy of BYTESTQ, has been placed with the third follow-up data. Other indicators of achievement include high school grades (HSGRADES) and high school diploma (HSDIPLOM).

HSTYPE shows the type of high school the respondent attended--public, Catholic, and other private. HSPROG identifies whether the respondent participated in a general, academic, or vocational program.

HANDICAP indicates whether the respondent has ever reported a handicap, participated in a program for the handicapped, or received handicap benefits. This variable was constructed from data reported in the base year and the first two follow-ups.

The follow-up surveys gathered a great deal of information on

participation in postsecondary education, and much of it is captured in the activity state variables for postsecondary education. These indicate for each respondent whether the respondent was enrolled in some form of postsecondary education at various points after high school. For attenders, the variables identify whether the school was public or private, whether it was two-year or four-year, and whether the student was full-time or part-time. The activity state variables are called PSESOC80, PSESFE81, PSESOC81, PSESFE82, PSESOC82, PSESFE83, PSESOC83, and PSESFE84. As the labels indicate, the variables point to each October and February, from October 1980 to February 1984.

6.6.2.2 Educational Variables--Sophomore Cohort

BYTEST is the composite score covering the base year tests in vocabulary, reading, and mathematics, and BYTESTQ is the quartile distribution of BYTEST. FUTEST is the composite score for the first follow-up tests, which were identical to the base year tests. FUTESTQ is the quartile coding of FUTEST. If FUTEST was missing, then BYTEST was substituted. For the convenience of the user, TESTQ, which is also the quartile coding of FUTEST, has been placed with the third follow-up data. Other indicators of achievement include high school grades (HSGRADES), high school grade point average (HSGPA), and high school diploma (HSDIPLOM).

HSTYPE shows the type of high school the respondent attended--public, Catholic, and other private. HSPROG identifies whether the respondent participated in a general, academic, or vocational program.

Analysts can incorporate considerable information on coursework taken during high school based on composite variables copied from the High School Transcript Survey. NEWBASEQ is the quartile coding of total credits in English, mathematics, physical science, biological science, social science, and foreign language. MATHPATN, SCIPATN, and VCONPATN indicate the amount and difficulty of coursework in mathematics, science, and vocational education.

HANDICAP indicates whether the respondent has ever reported a handicap, participated in a program for the handicapped, or received handicap benefits. This variable was constructed from data reported in the base year and first and second follow-ups.

Like the senior cohort data, activity state variables for postsecondary education indicate for each respondent whether he or she was enrolled in some form of postsecondary education at various points after high school. For attenders, the variables identify whether the school was public or private, whether it was two-year or four-year, and whether the student was full-time or part-time. The activity state variables are called PSESOC82, PSESFE83, PSESOC83, and PSESFE84. As the labels indicate, the variables point to each October and February, from October 1982 to February 1984.

6.6.3 Psychological Scales

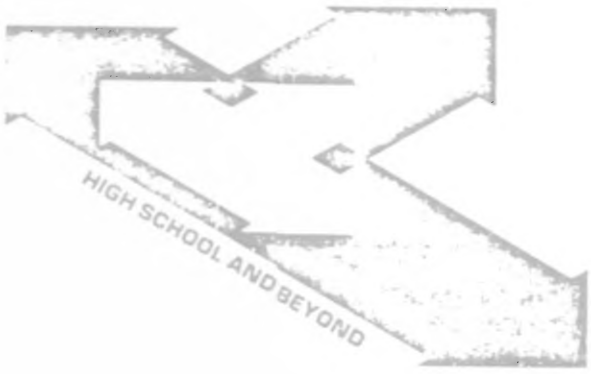
Five psychological scales were constructed from various attitude items included in the first follow-up questionnaires. These

scales are intended to measure self-concept (FECONCPT), locus-of-control (FELOCUS), work orientation (FEWORK), family orientation (FEFAMILY), and community orientation (FECOMMUN). (For the sophomore cohort, these variables are, respectively, FYCONCEPT, FYLOCUS, FYWORK, FYFAMILY and FYCOMMUN.) Each composite scale is the average of the standardized scores of the questionnaire items of which it is composed.

6.6.4 Employment Status

For seniors, there are eight activity state variables for employment status (JOBSOC80, JOBSFE81, JOBSOC81, JOBSFE82, JOBSOC82, JOBSFE83, JOBSOC83, and JOBSFE84). These variables indicate for each October and February, from October 1980 through February 1984, the employment status of the respondent. Each respondent is characterized as working full-time, working part-time, unemployed, or not in the labor force. For sophomores, there are only four activity state variables for employment--JOBSOC82, JOBSFE83, JOBSOC83 and JOBSFE84.

Appendix A: Third Follow-Up Questionnaire



THIRD FOLLOW-UP QUESTIONNAIRE

Prepared for U.S. Department of Education
Center for Statistics

by NORC, A Social Science Research Center
University of Chicago

Form Approved
OMB No. 1850-0557
App. Exp. 10-31-86

ED-CS Form No. 2422-1

1986

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The Federal Privacy Act of 1974 requires that each survey respondent be informed of the following:

(1) This survey is authorized by law (20 USC 1221e-1). While you are not required to respond, your cooperation will make the results of this survey comprehensive, accurate, and timely.

(2) You are subject to no penalty for not providing all or any part of the requested information.

(3) The purpose for which this information is to be used is to provide statistics on a national sample of students as they move out of the American high school system into the critical years of early adulthood. These statistics will be related to postsecondary educational costs and financial aid and other factors on the educational, work, and career choices of young adults.

(4) The routine uses of these data will be statistical in nature as detailed in paragraph 9 of Appendix B of the Department Regulations (34 CFR 5b) published in the Federal Register, Vol. 45, No. 92, May 9, 1980.

NOTE: The O.M.B. approval number listed on the front cover does not apply to questions marked with an asterisk (*). These questions are supported by a research grant which, under Federal Regulations, is not subject to O.M.B. approval.

INTERVIEWER USE ONLY

INT. | | | | | | |

DISP. | | |

BEFORE YOU START . . . READ THIS!

MARKING DIRECTIONS

Filling out this questionnaire is as easy as 1 - 2 - 3!

For questions on which you respond by filling in an oval, please make heavy black marks that completely fill the oval. If you make a mistake, completely erase the incorrect answer and enter the correct one.

CORRECT MARKS ● ●

INCORRECT MARKS ✗ ✓ ○ ◐

Please do not make stray marks of any kind. If any stray marks are made by accident, please erase them completely.

Instructions are included with each question. Below are examples of the different kinds of instructions you will see and the correct way to answer each kind of question. Be sure to use the No. 2 pencil we have provided. Do not use a ballpoint or felt-tip pen.

1 CIRCLE OR MARK ANSWER CATEGORIES:

It is important to circle or mark (as specified) one or more numbers that go with your answers.

EXAMPLE A

What is the color of your eyes? (MARK ONE)

Brown
Blue
● Green
Another color

"My eyes are green."

EXAMPLE B

Last week did you do any of the following? (MARK ALL THAT APPLY)

● See a play
● Go to a movie
Attend a sporting event

"Last week I saw a movie and a play."

EXAMPLE C

Do you plan to do any of the following next week? (CIRCLE ONE NUMBER FOR EACH LINE)

	Yes	No	Not Sure
a. Visit a relative	1	(2)	3
b. Go to a museum	1	2	(3)
c. Go to a library	(1)	2	3

"I don't plan to visit a relative next week. I may go to a museum and I'm definitely going to the library."

EXAMPLE D

Where do you usually buy the following reading materials? (CIRCLE ALL THAT APPLY FOR EACH LINE)

	Newsstand	Drugstore	Bookstore	Other	Never Buy
a. Newspaper	(1)	1	1	1	1
b. Magazines	(1)	(1)	1	1	1
c. Paperback books	1	1	1	1	(1)

"I usually buy newspapers at a newsstand. I buy magazines at newsstands or drugstores. I don't buy paperback books."

EXAMPLE E

What is your favorite sport? (MARK ONE)

Football
Baseball
Basketball
● Other (WRITE IN) → ICE HOCKEY

"My favorite sport is ice hockey."

(On write-in items, please confine writing to inside the box.)

2. AMOUNTS OF MONEY ARE ENTERED IN BOXES:

EXAMPLE A Salary of $6.50 an hour

RIGHT: $ | | | . | | 6 | . | 5 | 0 |

WRONG: ~~$ | | 6 | 5 | 0 | | | . | | |~~

EXAMPLE B My television costs $500.

RIGHT: $ | | | . | 5 | 0 | 0 | . | 0 | 0 |

WRONG: ~~$ | 5 | 0 | 0 | | | | | |~~

3. DATES AND OTHER NUMBERS ARE ALSO ENTERED IN BOXES OR GRIDS:

EXAMPLE A How many hours did you work last week? (WRITE IN BELOW)

"I worked 5 hours."

0	5

RIGHT

~~| 5 | | |~~

WRONG

EXAMPLE B June, 1983

RIGHT: | 0 | 6 | MONTH | | 8 | 3 | YEAR |

WRONG: ~~| 6 | | MONTH | | 8 | 3 | YEAR |~~

EXAMPLE C Number of Children

RIGHT: | 0 | 3 |

WRONG: ~~| 3 | | |~~

EXAMPLE D

February 23, 1964

RIGHT →

MONTH		DAY						YEAR	
Jan	Jul	1	7	13	19	25	31	60	65
● Feb	Aug	2	8	14	20	26		61	66
Mar	Sep	3	9	15	21	27		62	67
Apr	Oct	4	10	16	22	28		63	68
May	Nov	5	11	17	●	29		● 64	
June	Dec	6	12	18	24	30			

WE HOPE YOU WILL ANSWER EVERY QUESTION THAT APPLIES TO YOU.
BUT YOU MAY SKIP ANY QUESTION YOU DO NOT WISH TO ANSWER.

BACKGROUND INFORMATION

1. What is today's date?

MONTH		DAY					
		1	7	13	19	25	31
Feb	June	2	8	14	20	26	
Mar	July	3	9	15	21	27	
Apr	Aug	4	10	16	22	28	
May		5	11	17	23	29	
		6	12	18	24	30	

2. What is your birthdate?

MONTH		DAY						YEAR	
Jan	July	1	7	13	19	25	31	60	65
Feb	Aug	2	8	14	20	26		61	66
Mar	Sep	3	9	15	21	27		62	67
Apr	Oct	4	10	16	22	28		63	68
May	Nov	5	11	17	23	29		64	
June	Dec	6	12	19	24	30			

3. What were you doing the first week of February 1986? (CIRCLE ALL THAT APPLY)
5

a. Working for pay at a full-time or part-time job 1
b. Taking vocational or technical courses at any kind of school or college (for example, vocational, trade, business, or other career training school) 1
c. Taking academic courses at a two- or four-year college 1
d. Taking courses at a graduate or professional school (law, medicine, pharmacy, dentistry, etc.) 1
e. Serving in an apprenticeship program or government training program 1
f. Serving on active duty in the Armed Forces (or service academy) 1
g. Keeping house (without other job) 1
h. Holding a job but on temporary layoff from work or waiting to report to work 1
i. Looking for work 1
j. Taking a break from working and from school 1
k. Other (PLEASE SPECIFY) 1

4. With whom did you live the first week of February 1986? (MARK ALL THAT APPLY)

a. I lived alone
b. Father
c. Other male guardian (stepfather or foster father)
d. Mother
e. Other female guardian (stepmother or foster mother)
f. Brother(s) and or sister(s) (including step- or half-)
g. Grandparents
h. My husband wife
i. My child or my children
j. Other relative(s) (children or adults)
k. Non-relative(s) (children or adults)

5. How many brothers and sisters do you have in each of the age groups below? Please include step-brothers and step-sisters if they live, or have lived, in the same household. (CIRCLE ONE ON EACH LINE)

How many brothers and sisters do you have who are:	None	One	Two	Three	Four	Five or More
5 or more years older	00	01	02	03	04	05
Between 04 and 05 years older	00	01	02	03	04	05
Between 03 and 04 years older	00	01	02	03	04	05
Between 02 and 03 years older	00	01	02	03	04	05
Between 01 and 02 years older	00	01	02	03	04	05
Up to 01 year older	00	01	02	03	04	05
Same age as you	00	01	02	03	04	05
Up to 01 year younger	00	01	02	03	04	05
Between 01 and 02 years younger	00	01	02	03	04	05
Between 02 and 03 years younger	00	01	02	03	04	05
Between 03 and 04 years younger	00	01	02	03	04	05
Between 04 and 05 years younger	00	01	02	03	04	05
5 or more years younger	00	01	02	03	04	05

6. a. As of the first week of February 1986, did you own a house, apartment, co-op, condominium or mobile home? (MARK ONE)

○ Yes ○ No

b. How far is your place of residence from the city or community where you lived in your last year of high school? (MARK ONE)

- ○ Same place I lived in when I was in my last year of high school
- ○ Less than 50 miles
- ○ 50 to 99 miles
- ○ 100 to 199 miles
- ○ 200 to 499 miles
- ○ 500 miles or more

WORK EXPERIENCE

In this section, we would like to find out about the jobs you have held, particularly in the period between March 1984 and the present time. Include full-time jobs, part-time jobs, apprenticeships, on-the-job training, military service and so on.

We are interested in learning about the kinds of jobs you have held, the hours you worked and your income from these jobs, the level of your job satisfaction and the relation of your training and education to your work experience. This information will help us better understand the movement of young people into the world of work and the reasons for changes in job situations.

---

7. Between March 1984 and the present time, did you hold a full-time or part-time job of any kind? This includes
§ PAID jobs, VOLUNTEER jobs, working WITHOUT PAY on a family farm or business or being in the MILITARY.
(CIRCLE ONE)

1. Yes (CONTINUE TO INSTRUCTIONS BELOW)

2. No (SKIP TO Q. 15)

IMPORTANT INSTRUCTIONS

We would like information about all of the jobs you had since March 1984. Start with your current or most recent job and work backward in time to March 1984. There is room to discuss four jobs. Since March 1984

IF YOU ONLY HAD ONE JOB:	Enter that job at Q.8; answer parts A-L.
IF YOU HAD TWO JOBS:	Enter current or most recent job at Q.8 and the 2nd most recent job at Q.9; answer parts A-L.
IF YOU HAD THREE JOBS:	Continue as above
IF YOU HAVE HAD MORE THAN 4 JOBS:	Enter the most recent three jobs in Qs.8 to 10 and then enter the job you held in March 1984 or the first job thereafter in Q.11.
IF YOU HELD TWO JOBS AT THE SAME TIME:	Enter both jobs but enter them on separate pages.
IF YOU HAVE BEEN IN THE MILITARY:	Please consider your entire military experience as one job.

8. CURRENT OR MOST RECENT JOB HELD SINCE MARCH 1984 (ANSWER PARTS A-L)

A. What kind of job or occupation did you or do you have? (For example, salesperson, waitress, secretary, § assembler, etc.) WRITE IN

B. What kind of business or industry was this job in? (For example, retail shoe store, restaurant, electronic assembly plant) WRITE IN

C. What were your main activities or duties on this job? (For example, selling shoes, waiting on tables, putting computer boards together) WRITE IN

D. On this job were you (MARK ONE)

- ○ Employee of a PRIVATE company
- ○ GOVERNMENT employee (federal, state, local)
- ○ Self-employed in your OWN business
- ○ Working WITHOUT PAY on a family business or farm
- ○ Working WITHOUT PAY in a volunteer job

E. When were you working at this job? (CIRCLE ALL THE MONTHS THAT APPLY FOR EACH YEAR) §

	JAN	FEB	MAR	APR	MAY	JUNE	JUL	AUG	SEPT	OCT	NOV	DEC
1984	--	--	03	04	05	06	07	08	09	10	11	12
1985	01	02	03	04	05	06	07	08	09	10	11	12
1986	01	02	03	04	05	06	07	--	--	--	--	--

F. Was this a seasonal job? (For example, harvester, life-guard, ski-instructor) (MARK ONE)

○ Yes ○ No

G. Write in below your starting salary (before deductions) on this job.
(AVERAGE IN ANY TIPS OR COMMISSION. IF YOU ARE NOT SURE, GIVE YOUR BEST ESTIMATE)
(WRITE IN)

$ ___,___.___

Is the figure you entered an hourly, weekly, bi-weekly, monthly or yearly wage? (CIRCLE ONE)

Hourly	01	Monthly	04
Weekly	02	Yearly	05
Bi-weekly	03	Working without pay	06

H. Write in below your current salary (before deductions) on this job or your salary at the time you left. (AVERAGE IN ANY TIPS OR COMMISSION. IF YOU ARE NOT SURE OF THE EXACT AMOUNT, GIVE YOUR BEST ESTIMATE)

(WRITE IN) →

$ ___,___.___

Is the figure you entered an hourly, weekly, bi-weekly, monthly or yearly wage? (CIRCLE ONE)

Hourly	01	Monthly	04
Weekly	02	Yearly	05
Bi-weekly	03	Working without pay	06

I. About how many hours a week did or do you usually work in this job? (WRITE IN BELOW)

HOURS PER WEEK: ___

J. How did you find this job? (MARK THE ONE MOST IMPORTANT CATEGORY)

- School employment or placement service
- Public employment service
- Private employment agency
- Newspaper advertisement
- Checked with employer directly
- Through a relative
- Through a friend
- Civil Service application
- Union registration
- Other (WRITE IN) →

K. Why did you leave this job? (MARK THE ONE MOST IMPORTANT CATEGORY)

- Job ended (temporary job, laid off, or fired)
- School-related reasons (graduated, school started, school year ended)
- Quit because job, hours, or pay, etc., unsatisfactory
- Found a better job or was promoted
- Moved elsewhere
- Health-related reasons (illness, injury, pregnancy)
- Other (WRITE IN) →

STILL HAVE THIS JOB

L. Did you hold any other jobs since March 1, 1984? (CIRCLE ONE)

1. Yes (ENTER 2ND JOB AT Q.9)
2. No (SKIP TO Q. 12)

9. **SECOND MOST RECENT JOB HELD SINCE MARCH 1984** (ANSWER PARTS A-L)

A. **What kind of job or occupation did you or do you have? (For example, salesperson, waitress, secretary, assembler, etc.)** WRITE IN →

B. **What kind of business or industry was this job in? (For example, retail shoe store, restaurant, electronic assembly plant)** WRITE IN →

C. **What were your main activities or duties on this job? (For example, selling shoes, waiting on tables, putting computer boards togeth[illegible]** WRITE IN →

D. **On this job were you** (MARK ONE)

- ○ Employee of a PRIVATE company
- ○ GOVERNMENT employee (federal, state, local)
- ○ Self-employed in your OWN business
- ○ Working WITHOUT PAY on a family business or farm
- ○ Working WITHOUT PAY in a volunteer job

E. **When were you working at this job?** (CIRCLE ALL THE MONTHS THAT APPLY FOR EACH YEAR)

	JAN	FEB	MAR	APR	MAY	JUNE	JUL	AUG	SEPT	OCT	NOV	DEC
1984	--	--	03	04	05	06	07	08	09	10	11	12
1985	01	02	03	04	05	06	07	08	09	10	11	12
1986	01	02	03	04	05	06	07	--	--	--	--	--

F. **Was this a seasonal job? (For example, harvester, life-guard, ski-instructor)** (MARK ONE)

○ Yes ○ No

G. **Write in below your starting salary (before deductions) on this job.**
(AVERAGE IN ANY TIPS OR COMMISSION. IF YOU ARE NOT SURE, GIVE YOUR BEST ESTIMATE)
(WRITE IN) →

$ ____,____.__

Is the figure you entered an hourly, weekly, bi-weekly, monthly or yearly wage? (CIRCLE ONE)

Hourly	01	Monthly	04
Weekly	02	Yearly	05
Bi-weekly	03	Working without pay	06

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H. Write in below your current salary (before deductions) on this job or your salary at the time you left. (AVERAGE IN ANY TIPS OR COMMISSION. IF YOU ARE NOT SURE OF THE EXACT AMOUNT, GIVE YOUR BEST ESTIMATE)

(WRITE IN) →

$ ☐☐,☐☐☐.☐☐

Is the figure you entered an hourly, weekly, bi-weekly, monthly or yearly wage? (CIRCLE ONE)

Hourly	01	Monthly	04
Weekly	02	Yearly	05
Bi-weekly	03	Working without pay	06

I. **About how many hours a week did or do you usually work in this job?** (WRITE IN BELOW)

HOURS PER WEEK: ☐☐

J. **How did you find this job?** (MARK THE ONE MOST IMPORTANT CATEGORY)

- School employment or placement service
- Public employment service
- Private employment agency
- Newspaper advertisement
- Checked with employer directly
- Through a relative
- Through a friend
- Civil Service application
- Union registration
- Other (WRITE IN) →

☐

K. **Why did you leave this job?** (MARK THE ONE MOST IMPORTANT CATEGORY)

- Job ended (temporary job, laid off, or fired)
- School-related reasons (graduated, school started, school year ended)
- Quit because job, hours, or pay, etc. unsatisfactory
- Found a better job or was promoted
- Moved elsewhere
- Health-related reasons (illness, injury, pregnancy)
- Other (WRITE IN) →

STILL HAVE THIS JOB ☐

L. **Did you hold any other jobs since March 1, 1984?** (CIRCLE ONE)

§

1. Yes (ENTER 3RD JOB AT Q.10)

2. No (SKIP TO Q. 12)

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10. THIRD MOST RECENT JOB HELD SINCE MARCH 1984 (ANSWER PARTS A-L)

A. What kind of job or occupation did you or do you have? (For example, salesperson, waitress, secretary, assembler, etc.) WRITE IN →

B. What kind of business or industry was this job in? (For example, retail shoe store, restaurant, electronic assembly plant) WRITE IN →

C. What were your main activities or duties on this job? (For example, selling shoes, waiting on tables, putting computer boards together) WRITE IN →

D. On this job were you (MARK ONE)

- ○ Employee of a PRIVATE company
- ○ GOVERNMENT employee (federal, state, local)
- ○ Self-employed in your OWN business
- ○ Working WITHOUT PAY on a family business or farm
- ○ Working WITHOUT PAY in a volunteer job

E. When were you working at this job? (CIRCLE ALL THE MONTHS THAT APPLY FOR EACH YEAR)

	JAN	FEB	MAR	APR	MAY	JUNE	JUL	AUG	SEPT	OCT	NOV	DEC
1984	--	--	03	04	05	06	07	08	09	10	11	12
1985	01	02	03	04	05	06	07	08	09	10	11	12
1986	01	02	03	04	05	06	07	--	--	--	--	--

F. Was this a seasonal job? (For example, harvester, life-guard, ski-instructor) (MARK ONE)

○ Yes ○ No

G. Write in below your starting salary (before deductions) on this job.
(AVERAGE IN ANY TIPS OR COMMISSION. IF YOU ARE NOT SURE, GIVE YOUR BEST ESTIMATE)
(WRITE IN) →

$ ___,___.___

Is the figure you entered an hourly, weekly, bi-weekly, monthly or yearly wage? (CIRCLE ONE)

Hourly	01	Monthly	04
Weekly	02	Yearly	05
Bi-weekly	03	Working without pay	06

H. Write in below your current salary (before deductions) on this job or your salary at the time you left. (AVERAGE IN ANY TIPS OR COMMISSION. IF YOU ARE NOT SURE OF THE EXACT AMOUNT, GIVE YOUR BEST ESTIMATE)

(WRITE IN) →

$ ___,___.___

Is the figure you entered an hourly, weekly, bi-weekly, monthly or yearly wage? (CIRCLE ONE)

Hourly	01	Monthly	04
Weekly	02	Yearly	05
Bi-weekly	03	Working without pay	06

I. About how many hours a week did or do you usually work in this job? (WRITE IN BELOW)

HOURS PER WEEK: ___

J. How did you find this job? (MARK THE ONE MOST IMPORTANT CATEGORY)

- School employment or placement service
- Public employment service
- Private employment agency
- Newspaper advertisement
- Checked with employer directly
- Through a relative
- Through a friend
- Civil Service application
- Union registration
- Other (WRITE IN) →

K. Why did you leave this job? (MARK THE ONE MOST IMPORTANT CATEGORY)

- Job ended (temporary job, laid off, or fired)
- School-related reasons (graduated, school started, school year ended)
- Quit because job, hours, or pay, etc. unsatisfactory
- Found a better job or was promoted
- Moved elsewhere
- Health-related reasons (illness, injury, pregnancy)
- Other (WRITE IN) →

STILL HAVE THIS JOB

L. Did you hold any other jobs since March 1, 1984? (CIRCLE ONE)

§

1 Yes (ENTER 4TH JOB AT Q 11)

2 No (SKIP TO Q 12)

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11. **FOURTH MOST RECENT JOB HELD SINCE MARCH 1984** (ANSWER PARTS A-L)

A. **What kind of job or occupation did you or do you have? (For example, salesperson, waitress, secretary, assembler, etc.)** WRITE IN →

B. **What kind of business or industry was this job in? (For example, retail shoe store, restaurant, electronic assembly plant)** WRITE IN →

C. **What were your main activities or duties on this job? (For example, selling shoes, waiting on tables, putting computer boards together)** WRITE IN →

D. **On this job were you** (MARK ONE)

- Employee of a PRIVATE company
- GOVERNMENT employee (federal, state, local)
- Self-employed in your OWN business
- Working WITHOUT PAY on a family business or farm
- Working WITHOUT PAY in a volunteer job

E. **When were you working at this job?** (CIRCLE ALL THE MONTHS THAT APPLY FOR EACH YEAR)

	JAN	FEB	MAR	APR	MAY	JUNE	JUL	AUG	SEPT	OCT	NOV	DEC
1984	--	--	03	04	05	06	07	08	09	10	11	12
1985	01	02	03	04	05	06	07	08	09	10	11	12
1986	01	02	03	04	05	06	07	--	--	--	--	--

F. **Was this a seasonal job? (For example, harvester, life-guard, ski-instructor)** (MARK ONE)

Yes No

G. **Write in below your starting salary (before deductions) on this job.**
(AVERAGE IN ANY TIPS OR COMMISSION. IF YOU ARE NOT SURE, GIVE YOUR BEST ESTIMATE)
(WRITE IN) →

$ ____ , ____ . ____

Is the figure you entered an hourly, weekly, bi-weekly, monthly or yearly wage? (CIRCLE ONE)

Hourly	01	Monthly	04
Weekly	02	Yearly	05
Bi-weekly	03	Working without pay	06

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H. Write in below your current salary (before deductions) on this job or your salary at the time you left. (AVERAGE IN ANY TIPS OR COMMISSION. IF YOU ARE NOT SURE OF THE EXACT AMOUNT, GIVE YOUR BEST ESTIMATE)

(WRITE IN) →

$ ☐☐ , ☐☐☐ . ☐☐

Is the figure you entered an hourly, weekly, bi-weekly, monthly or yearly wage? (CIRCLE ONE)

Hourly	01	Monthly	04
Weekly	02	Yearly	05
Bi-weekly	03	Working without pay	06

I. **About how many hours a week did or do you usually work in this job?** (WRITE IN BELOW)

HOURS PER WEEK: ☐☐

J. **How did you find this job?** (MARK THE ONE MOST IMPORTANT CATEGORY)

- School employment or placement service
- Public employment service
- Private employment agency
- Newspaper advertisement
- Checked with employer directly
- Through a relative
- Through a friend
- Civil Service application
- Union registration
- Other (WRITE IN) →

☐

K. **Why did you leave this job?** (MARK THE ONE MOST IMPORTANT CATEGORY)

- Job ended (temporary job, laid off, or fired)
- School-related reasons (graduated, school started, school year ended)
- Quit because job, hours, or pay, etc. unsatisfactory
- Found a better job or was promoted
- Moved elsewhere
- Health-related reasons (illness, injury, pregnancy)
- Other (WRITE IN) →

STILL HAVE THIS JOB ☐

L. **Did you hold any other jobs since March 1, 1984?** (CIRCLE ONE)

1. Yes
2. No

(CONTINUE WITH Q.12 ON FOLLOWING PAGE) Log

12. **Have you received formal training to do your current (or most recent) job? (Do not include on-the-job or employer training.)** (CIRCLE ONE)

1. Yes (GO TO A)

2. No (SKIP TO Q.13)

A. **Where did you receive this training?** (MARK ALL THAT APPLY)

- ◯ High school
- ◯ Vocational, trade, business, or other career training school
- ◯ Apprenticeship or government training program
- ◯ Junior or community college
- ◯ College or university (four years or more)
- ◯ Independent graduate or professional school (medical, dental, law, theology, etc.)
- ◯ Military service
- ◯ Other (DESCRIBE)

B. **How did your training relate to your experiences on this job?** (MARK ALL THAT APPLY)

- ◯ I was able to apply most of what I learned in school
- ◯ I would have liked more job-related training before I started working
- ◯ The way the job was done was different from the way I was trained
- ◯ I did not use, on the job, the tools or equipment I was trained to use
- ◯ I could have gotten my job without the training
- ◯ I realized I had taken coursework associated with my training which was not helpful in performing my job
- ◯ Most of what I did on the job I learned to do in school
- ◯ I considered myself to be doing as well as others with similar training
- ◯ I considered going to school and getting the training a wise choice

C. **Did your training include instruction in the use of machines or equipment (include instruction in the operation of office machines, computers, machine tools, vehicles, or other such equipment)?** (MARK ONE)

- ◯ Yes (ANSWER D)
- ◯ No (SKIP TO Q.13)

D. **Thinking about the formal training you have received, was the equipment on which you were trained up to date?** (MARK ONE)

- ◯ Yes
- ◯ No

13. Have you held a full-time job at any time between March 1984, and the end of February 1986? (CIRCLE ONE)

1. Yes (ANSWER A) 2. No (SKIP TO Q.14)

A. Considering the most recent full-time job you have held, did you receive or participate in any type of employer-provided training benefits or training programs? (CIRCLE ONE)

1. Yes (CONTINUE WITH B) 2. No (SKIP TO Q.14)

B. Circle "1" in Column 1 for each type of training benefit or program you participated in. Then record the number of hours per week in Column 2 and the total number of weeks in Column 3.

COLUMN 1 TYPES OF TRAINING PROGRAMS OR TRAINING BENEFITS (CIRCLE ALL THAT APPLY)	COLUMN 2 NUMBER OF HOURS PER WEEK	COLUMN 3 TOTAL NUMBER OF WEEKS
Employer-provided job training during working hours on employer premises 1		
Informal on-the-job training (e.g., assigned to work with someone for instruction or guidance, etc.) 1		
Employer-provided education or training during working hours away from employer premises 1		
Tuition aid and/or financial assistance for attending educational institutions after working hours 1		
Other ..... 1 (PLEASE SPECIFY) →		

14. How satisfied were you with the following aspects of your present or most recent job? (MARK ONE FOR EACH LINE)

	Very Satisfied	Satisfied	Dissatisfied	Very Dissatisfied
a Pay and fringe benefits				
b Importance and challenge				
c Working conditions				
d Opportunity for promotion and advancement with this employer				
e Opportunity for promotion and advancement in this line of work				
f Opportunity to use past training and education				
g Security and permanence				
h Supervision				
i Opportunity for developing new skills				
j The pride and respect I received from my family and friends by being in this line of work				
k Relationships with co-workers				
l Job as a whole				

15. Write in here the name of the job or occupation that you expect or plan to have when you are 30 years old. Even if you are not at all sure, write in your ONE best guess.

A. Which of the categories below comes closest to describing that job? (CIRCLE ONE)

§

CLERICAL such as bank teller, bookkeeper, secretary, typist, mail carrier, ticket agent	01
CRAFTSMAN such as baker, automobile mechanic, machinist, painter, plumber, telephone installer, carpenter	02
FARMER, FARM MANAGER	03
HOMEMAKER (without other job)	04
LABORER such as construction worker, car washer, sanitary worker, farm laborer	05
MANAGER, ADMINISTRATOR such as sales manager, office manager, school administrator, buyer, restaurant manager, government official	06
MILITARY such as career officer, enlisted man or woman in the Armed Forces	07
OPERATIVE such as meat cutter, assembler, machine operator, welder, taxicab, bus or truck driver	08
PROFESSIONAL such as accountant, artist, registered nurse, engineer, librarian, writer, social worker, actor, actress, athlete, politician, but not including school teacher	09
PROFESSIONAL such as clergyman, dentist, physician, lawyer, scientist, college teacher	10
PROPRIETOR OR OWNER such as owner of a small business, contractor, restaurant owner	11
PROTECTIVE SERVICE such as detective, police officer or guard, sheriff, fire fighter	12
SALES such as salesperson, advertising or insurance agent, real estate broker	13
SCHOOL TEACHER such as elementary or secondary	14
SERVICE such as barber, beautician, practical nurse, private household worker, janitor, waiter, waitress	15
TECHNICAL such as draftsman, medical or dental technician, computer programmer	16
NOT WORKING	17

16. How important is each of the following factors in determining the kind of work you plan to be doing for most of your life? (MARK ONE FOR EACH LINE)

	Not Important	Somewhat Important	Very Important
a. Previous work experience in the area			
b. Good income to start or within a few years			
c. Job security and permanence			
d. Work that seems important and interesting to me			
e. Freedom to make my own decisions			
f. Meeting and working with sociable, friendly people			
g. A job that has high status and prestige			
h. A job where most problems are quite difficult and challenging			
i. A job which allows you to establish roots in a community and not have to move from place to place			
j. A job which leaves a lot of time for other things in my life			

PERIODS UNEMPLOYED

17. Between March 1984 and the present time, were you <u>ever</u> without a job, available for work, <u>and</u> looking
§ for work at the <u>same</u> time? (CIRCLE ONE)

1. Yes (ANSWER A-D)

2. No (SKIP TO Q.18)

A. During which months or parts of a month were you without a job, available for work, <u>and</u> looking for work? (MARK ALL THAT APPLY)

	JAN	FEB	MAR	APR	MAY	JUNE	JUL	AUG	SEPT	OCT	NOV	DEC
1984			○	○	○	○	○	○	○	○	○	○
1985	○	○	○	○	○	○	○	○	○	○	○	○
1986	○	○	○	○	○	○	○					

B. During the most recent period indicated above, on average about how many hours <u>per week</u> did you spend actively looking for work? (ENTER NUMBER OF HOURS)

HOURS PER WEEK ☐☐

C. What was the lowest salary or wage rate you would have accepted <u>during the most recent period indicated above</u>? (ENTER AMOUNT BELOW)

SALARY OR WAGE RATE: $ ☐☐,☐☐☐.☐☐

(CIRCLE ONE)

Hourly 01
Weekly 02
Monthly 04
Yearly 03

D. Did you <u>receive</u> unemployment insurance at any time during these years? (MARK ONE FOR EACH YEAR)

<u>1984</u>	<u>1985</u>	<u>1986</u>
Yes	Yes	Yes
No	No	No

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EDUCATION

18. With regard to your high school education, please indicate which of the following applies to you. (CIRCLE ONE)

§

Graduated with class or earlier 01
Left high school but returned to earn a regular diploma 02
Left high school but since earned an equivalent certificate (such as GED) 03
— (ANSWER A)

Currently working toward a regular high school diploma 04
Currently working toward an equivalent of high school diploma (such as GED) 05
Did not graduate or earn an equivalent certificate 06
— (GO TO Q.19)

IF YOU EARNED A HIGH SCHOOL DIPLOMA OR EQUIVALENCY CERTIFICATE

A. When did you earn the high school diploma or equivalency certificate?

§

ENTER MONTH AND YEAR: ☐☐ ☐☐
MONTH YEAR

19. As things stand now, do you think you will go further in your education? (CIRCLE ONE)

§

1. Yes (ANSWER A)
2. No (SKIP TO Q.20)

A. How far in school do you think you will get? (CIRCLE YOUR ONE BEST GUESS)

§

Some high school 01

Finish high school or earn a high school equivalency diploma or certificate 02

Vocational, trade, or business school after high school
- Less than two years 03
- Two years or more 04

College program
- Less than two years of college 05
- Two or more years of college (including two-year degree) 06
- Finish college (four- or five-year degree) 07

Master's degree or equivalent 08

Ph.D., M.D., or other advanced professional degree 09

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20. Since March 1984, have you attended and taken classes for credit at any school such as a college or university, § graduate or professional school, service academy or school, business school, trade school, technical institute, vocational school, community college, and so forth? **DO NOT INCLUDE ARMED FORCES TRAINING PROGRAMS, MANPOWER TRAINING PROGRAMS, OR NONCREDIT COURSES.** (CIRCLE ONE)

1. Yes (GO TO INSTRUCTIONS BELOW)

2. No, but attended a college or other postsecondary school after leaving high school and before March, 1984. (GO TO Q.23)

3. No, did not attend a postsecondary school like those listed above after leaving high school. (GO TO Q.35)

IMPORTANT INSTRUCTIONS

Next we would like information about the schools you have attended between March 1984 and the present time. There is room to provide information about 2 schools. At Q.21 write the name of the school you were attending on March 1, 1984. If you were not in school at that time, enter the name of the first school you attended after March 1, 1984. Answer parts A-J of Q.21 about that school. Provide information about the next school you attended at Q.22.

IF YOU ATTENDED MORE THAN 2 SCHOOLS:	Provide information about the first school you attended in Q.21. At Q.22 provide information about the most recent school you attended.
IF YOU ATTENDED TWO SCHOOLS AT THE SAME TIME:	Provide information about both schools but use a separate question (page) for each.

21. What is the exact name and location of the 1st school you attended after March 1, 1984?
§ (WRITE IN AND DO NOT ABBREVIATE THE SCHOOL NAME)

SCHOOL NAME

STREET ADDRESS

CITY STATE ZIP CODE

A. What kind of school is this? (MARK ONE)

- ○ Vocational, trade, business, or other career training school
- ○ Junior or community college (2-year)
- ○ College or university (4 years or more)
- ○ Independent graduate or professional school (medical, dental, law, theology, etc.)
- ○ Other (WRITE IN) →

B. Is this a public or private school? (MARK ONE)

- ○ Public
- ○ Private
- ○ Don't Know

C. When did you attend this school? (CIRCLE ALL THE MONTHS ATTENDED FOR EACH YEAR LISTED)
§

	JAN	FEB	MAR	APR	MAY	JUNE	JUL	AUG	SEPT	OCT	NOV	DEC
1984	--	--	03	04	05	06	07	08	09	10	11	12
1985	01	02	03	04	05	06	07	08	09	10	11	12
1986	01	02	03	04	05	06	07	--	--	--	--	--

D. During the last month you attended, how were you classified by the school? (MARK ONE)

- ○ Freshman
- ○ Sophomore
- ○ Junior
- ○ Senior
- ○ Graduate/Professional student
- ○ Special student
- ○ Other (WRITE IN) →
- ○ School did not classify students
- ○ Don't know

E. During the last month you attended this school, were you classified as a full-time student? (MARK ONE)

- ○ Yes
- ○ No
- ○ Don't know

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F. During the last month you attended, about how many hours a week were your classes scheduled to meet? (INCLUDE LECTURES, SHOP, LAB TIME, ETC ENTER HOURS)

TOTAL HOURS PER WEEK: ☐☐

G. During the last month you attended, what was your actual or intended Field of Study or training (for example, agriculture, education, or secretarial, etc.)? (WRITE IN NAME OF SPECIFIED FIELD OR AREA) →

☐

H. During the last month you attended, what kind of certificate, license, diploma, or degree were you studying for? (MARK ONE)

- ○ None (SKIP TO J)
- ○ Certificate (IN WHAT? - WRITE IN): → ☐
- ○ License (IN WHAT? - WRITE IN): → ☐
- ○ Two- or three-year vocational degree or diploma
- ○ Two-year academic degree or diploma
- ○ Four- or five-year Bachelor's degree
- ○ A Master's Degree or equivalent
- ○ A Ph.D. or equivalent
- ○ An M.D., L.L.B., J.D., D.D.S. or equivalent
- Other (WRITE IN): → ☐

(ANSWER I)

I. Did you complete all the requirements for that certificate, degree or diploma from this school? (MARK ONE)

Yes
No

MARK MONTH AND YEAR RECEIVED →

MONTH		YEAR
Jan	July	84
Feb	Aug	85
Mar	Sep	86
Apr	Oct	
May	Nov	
June	Dec	

J. Between March 1984 and the present time, did you
§ attend any other school? (CIRCLE ONE)

1. Yes (GO TO Q.22)
2. No (SKIP TO Q.23)

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22. What is the exact name and location of the 2nd school you attended after March 1, 1984? (WRITE IN AND DO NOT
§ ABBREVIATE THE SCHOOL NAME. IF YOU ATTENDED MORE THAN 2 SCHOOLS, PROVIDE INFORMATION ABOUT THE MOST RECENT SCHOOL YOU ATTENDED)

SCHOOL NAME

STREET ADDRESS

CITY STATE ZIP CODE

A. What kind of school is this? (MARK ONE)

- ○ Vocational, trade, business, or other career training school
- ○ Junior or community college (2-year)
- ○ College or university (4 years or more)
- ○ Independent graduate or professional school (medical, dental, law, theology, etc.)
- ○ Other (WRITE IN) →

B. Is this a public or private school? (MARK ONE)

- ○ Public
- ○ Private
- ○ Don't Know

C. When did you attend this school? (CIRCLE ALL THE MONTHS ATTENDED FOR EACH YEAR LISTED)
§

	JAN	FEB	MAR	APR	MAY	JUNE	JUL	AUG	SEPT	OCT	NOV	DEC
1984	--	--	03	04	05	06	07	08	09	10	11	12
1985	01	02	03	04	05	06	07	08	09	10	11	12
1986	01	02	03	04	05	06	07	--	--	--	--	--

D. During the last month you attended, how were you classified by the school? (MARK ONE)

- ○ Freshman
- ○ Sophomore
- ○ Junior
- ○ Senior
- ○ Graduate/Professional student
- ○ Special student
- ○ Other (WRITE IN) →
- ○ School did not classify students
- ○ Don't know

E. During the last month you attended this school, were you classified as a full-time student? (MARK ONE)

- ○ Yes
- ○ No
- ○ Don't know

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F. **During the last month you attended, about how many hours a week were your classes scheduled to meet?** (INCLUDE LECTURES, SHOP, LAB TIME, ETC. ENTER HOURS)

TOTAL HOURS PER WEEK: ☐☐

G. **During the last month you attended, what was your actual or intended Field of Study or training (for example, agriculture, education, or secretarial, etc.)?** (WRITE IN NAME OF SPECIFIED FIELD OR AREA) →

☐

H. **During the last month you attended, what kind of certificate, license, diploma, or degree were you studying for?** (MARK ONE)

- ☐ None (SKIP TO J)
- ☐ Certificate (IN WHAT? - WRITE IN): → ☐
- ☐ License (IN WHAT? - WRITE IN): → ☐
- ☐ Two- or three-year vocational degree or diploma
- ☐ Two-year academic degree or diploma
- ☐ Four- or five-year Bachelor's degree
- ☐ A Master's Degree or equivalent
- ☐ A Ph.D. or equivalent
- ☐ An M.D., L.L.B., J.D., D.D.S. or equivalent
- ☐ Other (WRITE IN): → ☐

→ (ANSWER I)

I. **Did you complete all the requirements for that certificate, degree or diploma from this school?** (MARK ONE)

Yes
No

MARK MONTH AND YEAR RECEIVED →

MONTH		YEAR
Jan	July	84
Feb	Aug	85
Mar	Sep	86
Apr	Oct	
May	Nov	
June	Dec	

J. **Between March 1984 and the present time, did you**
§ **attend any other school?** (CIRCLE ONE)

1. Yes
2. No

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*23. **Please indicate if you have ever seriously considered applying for admission to any of the following graduate degree programs?** (MARK ALL THAT APPLY)

- ○ Dentistry
- ○ Law
- ○ Medicine
- ○ Master's In Business Administration (MBA) or similar degree
- ○ Master's Degree (not Business Administration)
- ○ Doctoral Degree (Ph.D) in any field
- ○ Other graduate degree (PLEASE SPECIFY) → [ ]
- ○ **I have never considered applying to a graduate degree program**

*24. § **Which of the following standardized professional or graduate school admission tests have you ever taken?** (CIRCLE ALL THAT APPLY)

a. Dental Admission Test (DAT) 1

b. Graduate Management Admission Test (GMAT or ATGSB) 1

c. Graduate Record Examination (GRE) 1

d. Law School Admission Test (LSAT) 1

e. Medical College Admission Test (MCAT) 1

f. Other (PLEASE SPECIFY) 1

[ ]

g. **I took NO graduate or professional school admission tests** 1

*25. § **Have you ever applied for admission to a business or management graduate program which offers the MBA or similar degree?** (CIRCLE ONE)

Yes.....1 (SKIP TO Q.27)

No.....2 (GO TO Q.26)

*26. **What are the chances that you will apply for admission to a business or management graduate program which offers the MBA or similar degree?** (CIRCLE ONE)

Certain to apply in the future 01
Very likely to apply 02
Somewhat likely to apply 03
Not very likely to apply 04
Not at all likely to apply in the future 05

→ (SKIP TO Q.28)

PLEASE DO NOT WRITE IN SHADED AREA

*27. **Please list the name and location of the graduate management schools to which you applied. There are spaces to list three schools. If you enrolled in a school, list that school first. For each school, enter the date that you applied, whether you were accepted (and date), and whether you enrolled (and date of enrollment). Indicate whether you received a degree or left without a degree (and the date).**
PLEASE DO NOT ABBREVIATE THE SCHOOL NAME(S).

A. School Name: **City & State:**

When did you apply? (Enter Date)	Were you accepted? (CIRCLE ONE)	Did you enroll? (CIRCLE ONE)	Which of the following applies to you?
Month Year	Accepted .....1 → Month Year Not accepted.....2	Yes .....1 → Month Year No.....2	(CIRCLE ONE) (ENTER DATE) Received degree.....01 Left without degree..02 → Month Year Still enrolled.....03 Never enrolled.....04

If you applied to a second school, continue to B. Otherwise skip to Q.28.

B. School Name: **City & State:**

When did you apply? (Enter Date)	Were you accepted? (CIRCLE ONE)	Did you enroll? (CIRCLE ONE)	Which of the following applies to you?
Month Year	Accepted .....1 → Month Year Not accepted.....2	Yes .....1 → Month Year No.....2	(CIRCLE ONE) (ENTER DATE) Received degree.....01 Left without degree..02 → Month Year Still enrolled.....03 Never enrolled.....04

If you applied to a third school, continue to C. Otherwise skip to Q.28.

C. School Name: **City & State:**

When did you apply? (Enter Date)	Were you accepted? (CIRCLE ONE)	Did you enroll? (CIRCLE ONE)	Which of the following applies to you?
Month Year	Accepted .....1 → Month Year Not accepted.....2	Yes .....1 → Month Year No.....2	(CIRCLE ONE) (ENTER DATE) Received degree.....01 Left without degree..02 → Month Year Still enrolled.....03 Never enrolled.....04

28. **With regard to your education and training during the last year you were in postsecondary school, how satisfied as a whole were you with the following?** (MARK ONE OVAL FOR EACH LINE)

	Very satisfied	Somewhat satisfied	Neutral or no opinion	Somewhat dissatisfied	Very dissatisfied
a. The ability, knowledge, and personal qualities of most teachers	○	○	○	○	○
b. The social life	○	○	○	○	○
c. Development of my work skills	○	○	○	○	○
d. My intellectual growth	○	○	○	○	○
e. Counseling or job placement	○	○	○	○	○
f. The buildings, library, equipment, etc	○	○	○	○	○
g. Cultural activities, music, art, drama, etc	○	○	○	○	○
h. The intellectual life of the school	○	○	○	○	○
i. Course curriculum	○	○	○	○	○
j. The quality of the instruction	○	○	○	○	○
k. Sports and recreation facilities	○	○	○	○	○
l. The financial cost of attending	○	○	○	○	○
m. The prestige of the school	○	○	○	○	○

29. **During which of the following time periods did you attend any school (not including high school)?** (CIRCLE ALL THAT APPLY)

Any or all months between Fall 1984 - Spring 1985 ..... 1 (ANSWER A)

Any or all months between Fall 1985 - Spring 1986 ..... 1 (ANSWER B)

Did not attend school during either of the two periods listed above ..... 1 (SKIP TO Q.33)

§ A. **What were the total annual charges for tuition and fees for each year that you attended school? INCLUDE ALL TUITION AND FEES EVEN IF THEY WERE PAID COMPLETELY OR IN PART BY YOUR PARENTS, A SCHOLARSHIP OR A LOAN. WRITE IN YOUR BEST ESTIMATE; ROUND TO THE NEAREST DOLLAR.**

Fall 1984-Spring 1985 $ ____,____

§ B. **What were the total annual charges for tuition and fees for each year that you attended school? INCLUDE ALL TUITION AND FEES EVEN IF THEY WERE PAID COMPLETELY OR IN PART BY YOUR PARENTS, A SCHOLARSHIP OR A LOAN. WRITE IN YOUR BEST ESTIMATE; ROUND TO THE NEAREST DOLLAR.**

Fall 1985-Spring 1986 $ ____,____

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30. Did you receive (or will you receive) any kind of scholarship, fellowship, grant, or benefit (not a loan) to go to school during these time periods? (CIRCLE ALL THAT APPLY)

a. Yes, Fall 1984 - Spring 1985 1
b. Yes, Fall 1985 - Spring 1986 1
(ANSWER A AND B)

c. No ..... 1 (SKIP TO Q.31)

A. What kind(s) of scholarship, fellowship, grant, or benefit (not a loan) did you or will you receive? (MARK ALL THAT APPLY IN EACH COLUMN)

	(1) Fall 1984-Spring 1985	(2) Fall 1985-Spring 1986
a. Pell Grant or Basic Educational Opportunity Grant (BEOG)	○	○
b. Supplemental Educational Opportunity Grant	○	○
c. Other scholarship or grant	○	○

(PLEASE SPECIFY)

1984-85: [ ]

1985-86: [ ]

B. Estimate the total dollar value of the amount you received and will receive from scholarships, fellowships, grants, or benefits (not loans) during each period. Enter a zero, "0," where you received no such funds. (ENTER AMOUNTS; ROUND TO NEAREST DOLLAR)

REMEMBER:

$ [ ][ ], [5][6][5] RIGHT

$ [5][6], [5][ ][ ] WRONG

1. Fall 1984 - Spring 1985

Total Dollar Value: $ [ ][ ], [ ][ ][ ]

2. Fall 1985 - Spring 1986

Total Dollar Value: $ [ ][ ], [ ][ ][ ]

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31. **Considering the same time periods, did you pay any of the costs to go to school from the money you had saved or earned?** (CIRCLE ALL THAT APPLY)

a. Yes, Fall 1984 - Spring 1985 1
b. Yes, Fall 1985 - Spring 1986 1
(ANSWER A AND B)

c. No ..... 1 (SKIP TO Q.32)

A. **What was (were) the source(s) of the money you paid or will pay to go to school from the money you had saved or earned?** (MARK ALL THAT APPLY IN EACH COLUMN)

	(1) Fall 1984-Spring 1985	(2) Fall 1985-Spring 1986
a. Own savings from money I earned before I started postsecondary school	○	○
b. Own earnings (including summer earnings) since I started school but not while taking courses	○	○
c. Money earned from a college work-study job	○	○
d. Other earnings while taking courses	○	○

B. **Estimate the total amount of money you paid or will pay to go to school from money you had saved or earned. Enter a zero, "0", where you paid no money.** (ENTER AMOUNTS; ROUND TO NEAREST DOLLAR)

1. Fall 1984 - Spring 1985

Total Dollar Value: $ ___,___

2. Fall 1985 - Spring 1986

Total Dollar Value: $ ___,___

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33. Since leaving high school, have you received any loans for your education? (MARK ONE)

- Yes (ANSWER A-C)
- No (SKIP TO Q.34)

A. Have any of your student loan payments been deferred or forgiven? (MARK ONE)

- Yes
- No

B. Have any of your student loan repayment schedules begun? (MARK ONE)

- Yes (ANSWER C)
- No (SKIP TO Q.34)

C. When was your first payment due? (MARK CIRCLES FOR MONTH AND YEAR)

MONTH		YEAR
Jan	July	80
Feb	Aug	81
Mar	Sep	82
Apr	Oct	83
May	Nov	84
June	Dec	85
		86

34. Did your parents take out loans or borrow money to finance your postsecondary schooling? (MARK ONE)

- Yes (ANSWER A)
- No (GO TO Q.35)
- Don't Know (GO TO Q.35)

A. Did your parents borrow money under the Auxiliary Loan/PLUS loan program or through a Home Equity Loan? (MARK ONE)

- Yes
- No
- Don't Know

35. § Please indicate whether or not your parents (or guardians) claimed you as an exemption on their federal income tax during each of the following years: (CIRCLE ONE NUMBER FOR EACH LINE)

	Yes	No	Don't know
a. 1984	1	2	3
b. 1985	1	2	3

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Considering the same time periods, did you or will you receive a loan to go to school? (CIRCLE ALL THAT APPLY)

a. Yes, Fall 1984 - Spring 1985 1
b. Yes, Fall 1985 - Spring 1986..... 1
(ANSWER A AND B)

c. No ..... 1 (SKIP TO Q.33)

A. From which of the following sources did you or will you receive a loan to go to school? (MARK ALL THAT APPLY IN EACH COLUMN)

	(1) Fall 1984-Spring 1985	(2) Fall 1985-Spring 1986
a. Federal Guaranteed Student Loan Program	○	○
b. National Direct Student Loan	○	○
c. Other loan	○	○

(PLEASE SPECIFY)

1984-85: [ ]

1985-86: [ ]

B. Estimate the total dollar value of the amounts you received or will receive as loans to go to school during each period. Enter a zero, "0", where you received no loans. (ENTER AMOUNTS; ROUND TO NEAREST DOLLAR)

1. Fall 1984 - Spring 1985

Total Dollar Value: $ [ ][ ], [ ][ ][ ]

2. Fall 1985 - Spring 1986

Total Dollar Value: $ [ ][ ], [ ][ ][ ]

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36. For each year listed below, please estimate the number of days you lived in the home of your parents (or guardians). (ENTER NUMBER. IF NONE, ENTER "0")

1984	1985
___	___

37. For each year listed below, indicate which of the following were provided to you by your parents (or guardians), at no cost to you. (MARK ALL THAT APPLY FOR EACH YEAR)

	1984	1985
a. Room (Living quarters)	○	○
b. Board (Food)	○	○
c. Use of parents' car or truck	○	○
d. Medical expenses or insurance	○	○
e. Clothing	○	○
f. None of the above for the year listed	○	○

38. How much financial assistance (in cash or other gifts and support) did you receive from parents or guardians for each year specified below? (INCLUDE CASH ASSISTANCE, GIFTS OR SUPPORT RECEIVED). (MARK ONE FOR EACH YEAR)

	1984	1985
a. None	○	○
b. $1 - $500	○	○
c. $501 - 750	○	○
d. $751 - 1,000	○	○
e. $1,001 - 1,250	○	○
f. $1,251 - 1,500	○	○
g. $1,501 - 2,000	○	○
h. $2,001 - 3,000	○	○
i. $3,001 - or More	○	○
j. Don't Know	○	○

39. Have you formally applied for admission (filled out a form and sent it in) to any graduate or professional school (law, medicine, pharmacy, etc.) since the beginning of March 1984? (MARK ONE)

○ Yes (ANSWER A AND B)
○ No (SKIP TO Q.40)

A. Were you accepted for admission at any graduate or professional school? (MARK ONE)

○ Yes
○ No

B. Did you apply for financial aid? (MARK ONE)

○ Yes (ANSWER C)
○ No (SKIP TO Q.40)

C. Were you offered financial aid? (MARK ONE)

○ Yes
○ No
○ Don't Know

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OTHER TRAINING

40. Since March 1984, have you participated in any program such as on-the-job training, registered apprenticeships, § government training programs, personal enrichment, or correspondence courses? Do not include regular school and college programs or Armed Forces training programs. (CIRCLE ONE)

1. Yes (GO TO A)

2. No (SKIP TO Q.41)

A. What type of training program(s) or course(s) have you participated in? (CIRCLE ALL THAT APPLY)
§

a. Formal Registered Apprenticeship (your state or labor union) 1
b. Job Training Partnership Act (JTPA) 1
c. State or locally sponsored employment and training program 1
d. Other employment and training program 1
(PLEASE SPECIFY) →

e. Non-credit courses or activities in regular school 1
f. Correspondence courses 1
g. Courses given by a community group, labor organization, or church 1
h. Courses given by a private instructor 1
i. Courses given by television, radio or newspaper 1

B. How long is (or was) this program scheduled to last? (MARK ONE)

- Less than one month
- Between one month and one year
- More than one year

C. Have you completed this program? (MARK ONE)

- Yes
- No, still enrolled
- No, left without completing

D. Were you being trained for some kind of work? (MARK ONE)

- Yes (ANSWER E)

- No (SKIP TO Q.41)

E. What kind of work were you being trained for or learning about? If you have participated in more than one program, answer for the one in which you spent the most time. (Examples: photography, sales, auto mechanic work, plumbing, typing, etc.) (WRITE IN): →

FAMILY INFORMATION

41. What was your marital status the first week of February 1986? (CIRCLE ONE)

§

Divorced ..... 02 ┐
Widowed ..... 03 ├ (SKIP TO Q.48)
Separated ..... 04 ┘

Never married ..... 01 (SKIP TO Q.48)

Not married but living in a marriage-like relationship
(ANSWER Qs.42-45 FOR THIS PERSON) ..... 06 ┐
Married ..... 05 ┘ (GO TO Q.42)

42. What was your spouse (husband, or wife, or live-in partner) doing the first week of February 1986? (MARK ALL THAT APPLY)

- ◯ He or she was working for pay at a full-time or part-time job
- ◯ Taking vocational or technical courses at any kind of school or college (for example, vocational, trade, business, or other career training school)
- ◯ Taking academic courses at a two- or four-year college
- ◯ Taking courses at a graduate or professional school (e.g., law, medicine, pharmacy, etc.)
- ◯ Serving on active duty in the Armed Forces (or service academy)
- ◯ Keeping house (without other job)
- ◯ Temporary layoff from work, looking for work, or waiting to report to work
- ◯ Other (PLEASE SPECIFY) →

43. Did he or she hold a job the first week of February 1986? (CIRCLE ONE)

1. Yes (GO TO Q.44)
2. No (SKIP TO Q.45)

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44. Please describe below the job he or she held during the first week of February 1986.

A. What kind of job or occupation did he or she have? (For example, salesperson, waitress, secretary, etc.)
(WRITE IN) →

B. What kind of business or industry was this job in? (For example, shoe store, restaurant, office, etc.)
(WRITE IN) →

C. What were his or her most frequent activities or duties on this job? (For example, selling shoes, waiting on tables, typing and filing, etc.) (WRITE IN) →

D. Was he or she: (MARK ONE)

- ○ An employee of a PRIVATE company, bank, business, school, or individual working for wages, salary or commissions?
- ○ A GOVERNMENT employee (Federal, State, county or local institution or school)?
- ○ Self-employed in his or her OWN business, professional practice, or farm?
- ○ Working WITHOUT PAY in family business or farm?
- ○ Working WITHOUT PAY in volunteer job?

E. When did he or she start working at this job? (ENTER MONTH AND YEAR)

MONTH YEAR

F. How many hours does he or she usually work at this job in an average week? (ENTER NUMBER OF HOURS)

HOURS PER WEEK

G. In an average week, approximately how much does he or she earn at this job? Report his or her gross earnings before taxes or other deductions. If not paid by the week, please estimate. (ENTER AMOUNT; ROUND TO NEAREST DOLLAR)

APPROXIMATE GROSS EARNINGS
DURING AVERAGE WEEK: → $,

H. Is he or she currently working at this job? (MARK ONE)

- ○ Yes
- ○ No (IF NO, MARK ONE FOR MONTH HE OR SHE LEFT)

○ February	○ April	○ June
○ March	○ May	○ July

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45. As of the first week of February 1986, what was the highest level of education that he or she had attained? (MARK ONE)

- ○ Some high school
- ○ Finished high school or earned a high school equivalency diploma or certificate

Vocational, trade, or business school after high school

- ○ Less than two years
- ○ Two years or more

College program

- ○ Less than two years of college
- ○ Two or more years of college (including two-year degree)
- ○ Finished college (four- or five-year degree)

- ○ Master's degree or equivalent
- ○ Ph.D., M.D., or other advanced professional degree
- ○ Don't know

46. How many times have you been legally married? (CIRCLE ONE)

Once	01	(GO TO Q.47)
Twice	02	
Three or more times	03	
Never	04	(SKIP TO Q.48)

~~L31~~

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47. **Now we would like some information about your current or most recent marriage and any past marriage. Please start with your current or most recent marriage and then report the one before that, if any.**

COLUMN 1

Current or Most Recent Marriage

A. When did this marriage begin?
§ (ENTER MONTH AND YEAR)

MONTH YEAR

B. As of the first week of February 1986, were you (CIRCLE ONE)

Still married and living with your spouse..... 01 (ANSWER E)

Still married but temporarily living apart due to military service, work-related travel, hospitalization, imprisonment, etc..... 02 (ANSWER E)

Still married but separated from spouse ..... 03 (ANSWER C)

No longer married due to divorce or annulment ..... 04 (ANSWER D)

No longer married due to death of spouse ..... 05 (ANSWER D)

C. When did you stop living with your spouse?
(ENTER MONTH AND YEAR)

MONTH YEAR (ANSWER E)

D. When did this marriage end?
§ (ENTER MONTH AND YEAR)

MONTH YEAR

E. Did you have a previous marriage?
§ (CIRCLE ONE)

Yes.....1 (GO TO COLUMN 2)

No.....2 (SKIP TO Q.48)

COLUMN 2

Previous Marriage

A. When did this marriage begin?
§ (ENTER MONTH AND YEAR)

MONTH YEAR

B. As of the first week of February 1986, were you (MARK ONE)

○ No longer married due to divorce or annulment

○ No longer married due to death of spouse

C. When did this marriage end?
§ (ENTER MONTH AND YEAR)

MONTH YEAR (GO TO Q.48)

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48. **How many children, including adopted and step-children, do you eventually expect to have?** (MARK ONE)

- ○ None
- ○ One
- ○ Two
- ○ Three
- ○ Four
- ○ Five
- ○ Six or more

49. **As of the first week of February 1986, how many children (including adopted, foster-care and stepchildren) have you ever had?** (ENTER NUMBER. IF NONE, WRITE "0" AND SKIP TO Q.54)

§

NUMBER OF CHILDREN ☐☐

Next we would like some information about your children (including adopted, foster-care, and stepchildren). Please start with your first (oldest) child and then report all others after that, if any.

Children	A. What is the birthdate of this child? (ENTER MONTH AND YEAR)	B. Is the child adopted, a step-child, a foster care child or a child born to you? (MARK ONE)
50. First (oldest) Child	☐☐ MONTH ☐☐ YEAR	○ Born to me ○ Stepchild ○ Adopted ○ Foster care
51. Second Child	☐☐ MONTH ☐☐ YEAR	○ Born to me ○ Stepchild ○ Adopted ○ Foster care
52. Third Child	☐☐ MONTH ☐☐ YEAR	○ Born to me ○ Stepchild ○ Adopted ○ Foster care
53. Fourth Child	☐☐ MONTH ☐☐ YEAR	○ Born to me ○ Stepchild ○ Adopted ○ Foster care

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INCOME

54. Write in below your best estimate of your total yearly income before taxes for (a) ALL OF 1984, and (b) ALL OF 1985.
§ Include your spouse's (husband, wife, or live-in partner) income where asked. EVERY LINE SHOULD HAVE DOLLAR AMOUNT ENTRY. IF YOU DID NOT RECEIVE ANY INCOME FROM A SOURCE, ENTER A ZERO, "0". (ENTER AMOUNTS; ROUND TO NEAREST DOLLAR)

SOURCE	Amount Received 1984	Amount Received 1985
a. Your own wages, salaries, commissions or tips. IF NONE: ENTER "0"	$ ___,___	$ ___,___
b. Your own net income from a business or farm. IF NONE: ENTER "0"	$ ___,___	$ ___,___
c. Your spouse's (husband or wife or live-in partner) wages, salaries, commissions, or tips, and his or her net income from a business or farm. IF NONE: ENTER "0"	$ ___,___	$ ___,___
d. Dividends, interest, rental income, investment income (include spouse's). IF NONE: ENTER "0"	$ ___,___	$ ___,___
e. Social Security benefits (include spouse's). IF NONE: ENTER "0"	$ ___,___	$ ___,___
f. Veteran's benefits (include spouse's). IF NONE: ENTER "0"	$ ___,___	$ ___,___
g. Your unemployment compensation. IF NONE: ENTER "0"	$ ___,___	$ ___,___
h. Your spouse's unemployment compensation. IF NONE: ENTER "0"	$ ___,___	$ ___,___
i. Public assistance, welfare, AFDC, etc. (include spouse's). IF NONE: ENTER "0"	$ ___,___	$ ___,___
j. Income you (and your spouse) received as gifts from relatives or friends. IF NONE: ENTER "0"	$ ___,___	$ ___,___
k. Your scholarships, fellowships, grants, loans, etc. IF NONE: ENTER "0"	$ ___,___	$ ___,___
l. Your spouse's scholarships, fellowships, grants, loans, etc. IF NONE: ENTER "0"	$ ___,___	$ ___,___
m. Nontaxable income not included above (include spouse's). IF NONE: ENTER "0"	$ ___,___	$ ___,___
n. TOTAL INCOME (ADD TOGETHER PARTS a-m)	$ ___,___	$ ___,___

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EXPERIENCES AND OPINIONS

55. The following questions ask about your political participation. Thinking about the last 24 months. . . . (MARK ONE FOR EACH LINE)

	Frequently	Sometimes	Never
a. When you talked with your friends, did you ever talk about public problems – that is, what's happening in the country or in your community?	○	○	○
b. Did you ever talk about public problems with any of the following people?			
Your family	○	○	○
People where you work	○	○	○
Community leaders, such as club or church leaders	○	○	○
c. Did you ever talk about public problems with elected government officials or people in politics, such as Democratic or Republican leaders?	○	○	○
d. Did you ever talk to people to try to get them to vote for or against a candidate?	○	○	○
e. Did you ever give any money or buy tickets to help someone who was trying to win an election?	○	○	○
f. Did you ever go to any political meetings, rallies, barbecues, fish fries, or things like that in connection with an election?	○	○	○
g. Did you ever do any work to help a candidate in his or her campaign?	○	○	○
h. Did you ever hold an office in a political party or get elected to a government job?	○	○	○

56. Are you registered to vote? (MARK ONE)

○ Yes
○ No

57. Between March 1984 and the end of February 1986 have you voted in a local, state, or national election? (MARK ONE)

○ Yes
○ No

58. Did you vote in the 1984 Presidential election? (MARK ONE)

○ Yes
○ No

59. To what extent have you voluntarily participated in the following groups during the last 24 months? (By voluntarily, we mean you are not an employee of the group; by active participant, we mean that you attend the meetings or events; by member only, we mean that you are on a mailing or telephone list so that you are kept informed of meetings and events.) (MARK ONE FOR EACH LINE)

	Active Participant	Member Only	Not At All
a. Youth organizations--such as Little League coach, scouting, etc.	○	○	○
b. Union, farm, trade or professional association	○	○	○
c. Political clubs or organizations	○	○	○
d. Church or church-related activities (not including worship services)	○	○	○
e. Community centers, neighborhood improvement, or social-action associations or groups	○	○	○
f. Organized volunteer work--such as in a hospital	○	○	○
g. A social, hobby, garden, or card playing group	○	○	○
h. Sports teams or sports clubs	○	○	○
i. A literary, art, discussion, music, or study group	○	○	○
j. Educational organizations--such as PTA or an academic group	○	○	○
k. Service organizations--such as Rotary, Junior Chamber of Commerce, Veterans, etc.	○	○	○
l. Another voluntary group in which I participate	○	○	○

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60. **How do you feel about each of the following statements?** (MARK ONE FOR EACH LINE)

	Agree strongly	Agree	Disagree	Disagree strongly
a. A working mother of pre-school children can be just as good a mother as the woman who doesn't work	○	○	○	○
b. It is usually better for everyone involved if the man is the achiever outside the home and the woman takes care of the home and family	○	○	○	○
c. Men and women should be paid the same money if they do the same work	○	○	○	○
d. Most women are happiest when they are making a home and caring for children	○	○	○	○
e. A woman should have exactly the same educational opportunities as a man	○	○	○	○
f. A preschool child is likely to suffer if the mother works	○	○	○	○
g. Women should be considered as seriously as men for jobs as executives or politicians	○	○	○	○
h. Other things being equal, a woman's job should be considered as seriously as a man's in making family decisions about whether to move, where to live, etc	○	○	○	○

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61. How do you feel about each of the following statements? (MARK ONE FOR EACH LINE)

	Agree strongly	Agree	Disagree	Disagree strongly	No opinion
a. I take a positive attitude toward myself					
b. Good luck is more important than hard work for success					
c. I feel I am a person of worth, on an equal plane with others					
d. I am able to do things as well as most other people					
e. Every time I try to get ahead, something or somebody stops me					
f. Planning only makes a person unhappy, since plans hardly ever work out anyway					
g. People who accept their condition in life are happier than those who try to change things					
h. On the whole, I am satisfied with myself					
i. What happens to me is my own doing					
j. At times I think I am no good at all					
k. When I make plans, I am almost certain I can make them work					
l. I feel I do not have much to be proud of					

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The next few questions are about your use of alcohol in the past month. (One drink = glass/can/bottle of beer or glass of wine or shot/highball/cocktail of hard liquor.)

***62. How many days in the past month (30 days) did you drink an alcoholic beverage, that is beer, wine or hard liquor?**
§ (CIRCLE ONE)

None	00	(SKIP TO Q 65)
1 day	01	(GO TO Q.63)
2 days	02	
3 days	03	
4 days	04	
5 days	05	
6-10 days	06	
11-15 days	07	
16-20 days	08	
21-25 days	09	
26-30 days	10	

***63. On how many days during the last 30 days, did you have six or more drinks?** (CIRCLE ONE)
§

None	00
1 day	01
2 days	02
3 days	03
4 days	04
5 days	05
6-10 days	06
11-15 days	07
16-20 days	08
21-25 days	09
26-30 days	10

***64. Considering only the days that you drank in the last 30 days. . . .**
§ (CIRCLE ONE FOR EACH LINE)

A. On the day that you had the fewest drinks, how many drinks did you have?

01 02 03 04 05 06 07 08 09 10 or more

B. On the day that you had the greatest number of drinks, how many drinks did you have?

01 02 03 04 05 06 07 08 09 10 or more

C. On days that you drank, what was the average number of drinks that you had?

01 02 03 04 05 06 07 08 09 10 or more

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65. **In the LAST 12 MONTHS, how many times (if any) have you seen a doctor or other professional for each of the following?** (MARK ONE FOR EACH LINE)

	None	Once	Twice	3 to 5 Times	6 to 9 Times	10 or More Times
a. for a routine physical check-up	○	○	○	○	○	○
b. for an injury suffered in a fight, assault, or auto accident	○	○	○	○	○	○
c. for any other accidental injury	○	○	○	○	○	○
d. for some physical illness or symptom, not including pregnancy	○	○	○	○	○	
e. for some emotional or psychological problem or symptom	○	○	○	○	○	○

66. **Do you have any of the following conditions?** (MARK ALL THAT APPLY)

- ☐ Specific learning disability
- ☐ Visual handicap (not corrected by glasses)
- ☐ Hard of hearing
- ☐ Deafness
- Speech disability
- ☐ Orthopedic handicap
- ☐ Other physical disability or handicap (PLEASE SPECIFY)

  ↓

  [ ]

- ☐ NONE OF THESE CONDITIONS

67. **Do you feel that you have a physical condition that limits the kind or amount of work you can do on a job, or affects your chances for more education?** (MARK ONE)

- Yes
- No

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High School and Beyond
a national longitudinal
study for the 1980s

National Longitudinal Studies Program
Sponsored by the National Center for Education Statistics,
U.S. Department of Education

National Longitudinal
Study of the High School
Class of 1972

October 1985

Dear High School and Beyond Participant:

We are preparing for the third High School and Beyond follow-up survey of almost 30,000 young adults who were sophomores and seniors in high school in 1980.

Your participation has made High School and Beyond a valuable resource for educators and policymakers in the continuing debate about the quality of schools. The information you have provided about your employment, education, and life experiences since high school has helped researchers to gain a better understanding of the effect that education has on the lives of Americans.

This year, High School and Beyond (HS&B) will be combined with another Department of Education survey, the National Longitudinal Study of the High School Class of 1972 (NLS-72). The 15,000 NLS-72 participants were seniors in 1972 and will be asked questions similar to those asked of HS&B survey members. Together, the surveys are even more valuable because they make it possible to compare the experiences of two different age groups and to see trends that develop over a longer period of time. There is additional information about both studies in the enclosed report.

To prepare for the surveys, we are updating our address files now. Please take a moment to verify or make corrections on the enclosed form, and then return it to us in the postage paid envelope.

In February, we will mail you a questionnaire and a check in appreciation for your time and cooperation. As always, your answers will be strictly confidential--they are never associated with your name. All responses appear only as part of statistical tables.

If you would like more information about the survey, please call us collect at 312/962-1114, and ask for Chris Russell. We look forward to your participation and thank you for your help.

Yours truly,

Calvin Jones

Calvin Jones
Project Director

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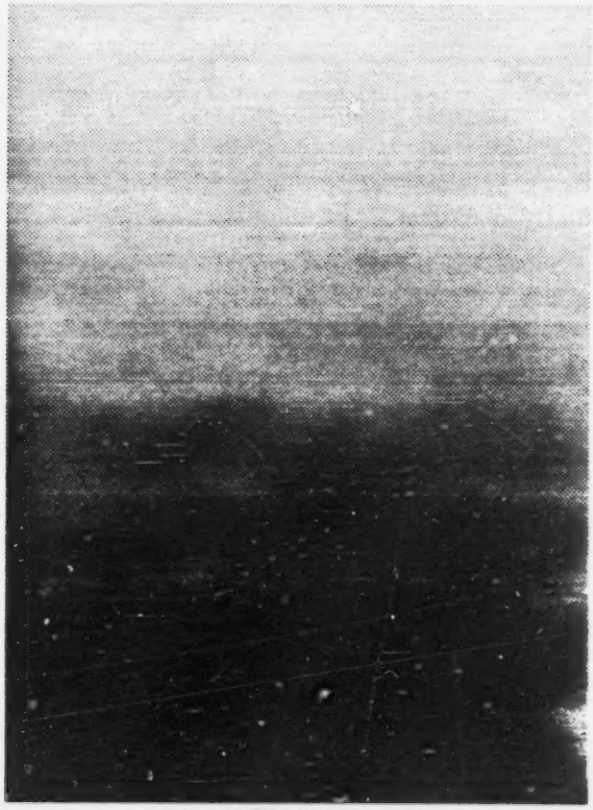
Conducted by NORC • A Social Science Research Center
University of Chicago • 6030 S. Ellis • Chicago, IL 60637 • 312/962-8998

A Report To Participants In The Longitudinal Studies Program Of The National Center For Education Statistics

The High School Classes of 1972, 1980, and 1982



NORC
A Social Science Research Center
University of Chicago
1985

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The High School Classes of 1972, 1980, and 1982

1972/1980

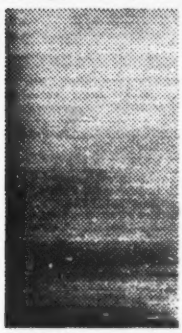
Education

Employment

Marriage And Children

Life Goals

1972 President Richard Nixon made his historic trip to China. Marlon Brando was awarded the best actor Oscar for his performance in *The Godfather*, but it was an offer he managed to refuse. Motown Records moved their headquarters from Detroit to Los Angeles. Eleven Israeli athletes were murdered by terrorists at the Summer Olympic Games in Munich and for some time it was thought that the Olympics were finished. Shirley Chisholm became the first Black woman to make a bid for the U.S. presidency. The Class of '72 graduated from high school, and, in October, the National Longitudinal Study of the Class of 1972 was launched.



1980 Ronald Wilson Reagan became the President of the United States. John Lennon was murdered outside his New York City apartment building. The second movie in the *Star Wars* trilogy—*The Empire Strikes Back*—was released. Blondie's single *Call Me* and Pink Floyd's album *The Wall* were number one on the charts. The Classes of '80 and '82 were seniors and sophomores in high school, and, in February, High School and Beyond began its study of them.

The times, and the participants in them, have changed a good deal since 1972, and even since 1980. The National Center for Education Statistics, a federal agency charged with monitoring the nation's educational systems, has undertaken to monitor the progress of three high school classes—your graduating classes—in the critical years after high school. With the assistance of NORC, A Social Science Research Center, affiliated with the University of Chicago, NCES is charting your progress into and through adult life.

The National Longitudinal Study of the Class of 1972 (NLS-72) and High School and Beyond (HS&B) have both surveyed their participants a number of times since high school graduation. A new survey is scheduled for 1986, and your participation is critical. Only if you are part of these studies will the picture of changing times and changing people be accurate and complete.

This report was prepared especially and exclusively for you—the participants in these major studies—to give you a sampling of some of the things that have been learned to date because you have been a part of them. This report summarizes findings from the three high school classes under study in four major areas of interest: education, employment, marriage and children, and life goals. But, to begin, it offers some background on the studies, their importance, and their uses.

The National Longitudinal Studies Program

The National Longitudinal Studies Program is a group of large-scale national surveys sponsored by the National Center for Education Statistics (NCES). A part of the U.S. Department of Education, NCES has been charged by Congress with responsibility for gathering and publishing full and complete statistics and other information on education in the United States and other countries. The General Education Provisions Act further directs NCES to analyze the meaning and significance of these statistics, and to report its findings to the public. The National Longitudinal Studies Program plays an important part in NCES's fulfillment of its mission. The longitudinal program—which involves following students, and former students, over time—goes a long way toward providing full and complete statistics, as well as much additional important information, on education in the United States.

The NLS-72 and HS&B

The first survey NCES conducted was the National Longitudinal Survey of the Class of 1972. NLS-72 interviewed 20,000 high school seniors in 1972; these same people have been interviewed four times, most recently in 1979, and will be interviewed again in 1986.

The second survey in NCES's program of longitudinal studies was High School and Beyond. First conducted in 1980, High School and Beyond collected information from approximately 58,000 high school seniors and sophomores—that is, members of the high school graduating classes of 1980 and 1982. Followup surveys to High School and Beyond interviewed the same people in 1982 and 1984; the next followup survey will be conducted, again with the same people, in 1986.

In 1986, for the first time, these two surveys will be conducted by the same organization—NORC, A Social Science Research Center, affiliated with the University of Chicago. An important part of this consolidation of the two surveys will be an effort to make the questions asked of the participants more comparable. As you will see in this *Report to Participants*, the existing similarity in the questions asked on these surveys allows some comparisons across high school classes separated by as much as ten years. Increased similarity will allow more interesting and important comparisons.

The Purpose of the Research

NCES's longitudinal studies program is based on the idea that federal, state, and local policies that affect people's transitions from school to work ought to be grounded in analyses of the educational *process*, not just of the resources put into it and the degrees and diplomas awarded. For this reason, NLS-72 and HS&B both collect a wide variety of information about how education interrelates with other aspects of a person's life—work, marriage and cohabitation, childbearing, leisure-time behavior, and values and attitudes. By following individuals over time, the surveys provide an enriched sense of how lives are shaped by the educational process and by subsequent choices.

And because three different age groups are being surveyed—two of them approximately the same age and one that is considerably older—it is possible for analysts to track the effects of changes in the educational process and in society as a whole. (For this reason, NCES's decision to resurvey the Class of 1972 after a space of seven years is especially important to policy analysts.)

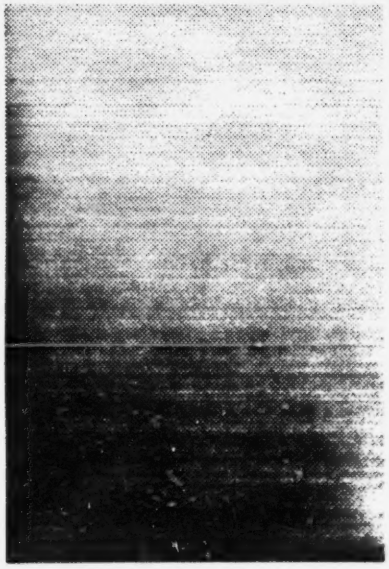
The Uses of the Survey

Because their subject matter is exceptionally timely and relevant, these two studies have always received a great deal of scholarly and Congressional attention. Some of the nation's largest circulation newspapers—the *New York Times* and *Daily News*, the *Wall Street Journal*, *Chicago Sun-Times*, and the *Washington Post*— have used these studies as a basis for analysis of education issues. The news magazines *Time* and *Newsweek*, and specialty publications such as *The Chronicle of Higher Education* and *Change*, have analyzed and commented on NLS-72 and HS&B information at length. The *Annotated Bibliography of Studies Using Data from High School and Beyond* and *National Longitudinal Study of the High School Class of 1972 Study Reports Update: Review and Annotation*, two bibliographies detailing uses of data from the two studies in scholarly texts and academic journals, go on for hundreds of pages.

Protecting Your Privacy

NORC, the research organization responsible for conducting NLS-72 and HS&B, has a long and distinguished history in social science research. A particular point of pride is the fact that during its forty-four year history, NORC has been absolutely committed to preserving the confidentiality of survey respondents. Thus, as in past followup surveys of NLS-72 and HS&B, your privacy will be completely protected. Your name will never be associated with your responses; your identity will not be revealed to NCES or anyone else. The findings from the survey will be reported only in statistical summaries, such as, "Eighty-five percent of the Class of 1980 reported that . . ."

This report offers an example of the way in which NLS-72 and HS&B information is presented, and how your privacy is protected. The report covers some of the major areas of interest in the study of your generation—education, employment, marriage and childbearing, and life goals—and it does so without naming names. The purpose of these studies is to trace the development of generations of young people, not that of individual members. The resulting data are of incalculable value in planning for the future of our country.



Education

The choices people make about postsecondary education are of great interest to researchers and policy makers. Educational data from NLS-72 and High School and Beyond have been analyzed and used by government officials, by academic researchers, and by journalists in the popular press to monitor the use of educational facilities, chart the effects of education on later life, and evaluate educational programs.

The Class of 1972

In October 1972, 50 percent of the Class of '72 chose to enroll in either 2-year or 4-year academic or vocational postsecondary education programs. Three years after high school, in 1975, enrollment had declined to 35 percent. Over the 7-year span between 1972 and 1979 enrollment in postsecondary education programs fell to 13 percent. About one quarter of the class received bachelor's degrees.

The most popular undergraduate majors for members of the Class of '72 were business and education. Among members of the class with bachelor's degrees, 18 percent took those degrees in business and 16 percent in education. The two most popular fields were not equally chosen by men and women. Business studies appealed more to men (24 percent for men versus 12 percent for women), and women were much more likely to study education (25 percent versus 9 percent). The next most popular major was the social sciences, chosen by 15 percent of the Class of '72's college graduates. Men led women in choosing this field by 4 percentage points.

After college, 22 percent of the graduates entered graduate programs. This included 12 percent of those who had majored in business, 29 percent of those in the social sciences, and 25 percent of those in the physical sciences. The undergraduate major that produced the most graduate students was the biological sciences, the traditional pathway to the health professions: 37 percent of those who obtained undergraduate degrees in biological science enrolled in graduate programs.

Members of the Class of '72 paid for postsecondary education by extensive use of financial aid programs. A minimum of 48 percent of those attending schools with high tuition received some form of financial aid during each academic year between 1972 and 1979. Among persons attending schools with low tuition, at least 33 percent received assistance. Students attending high-tuition schools assumed loans at twice the rate of those attending low-tuition schools. As late as 1979, 24 percent of the students reported that some portion of their educational loans was still outstanding.

The Class of 1980

Eight years later, the Class of '80 behaved much like the Class of '72 in their first three years after high school. Just over half of the sample enrolled in some form of postsecondary education immediately after high school. Three years later, 39 percent of the seniors were enrolled. Twenty-two percent of those in 4-year colleges chose to study business. The next most popular majors were those in the humanities, the choice of 16 percent of the students, and the social sciences, which accounted for 15 percent. Roughly equal percentages of men and women were found in the two most popular fields. Men again held a 5 percentage point edge in the social sciences. Education, the academic major of choice for 16 percent of the Class of '72, appealed to only 9 percent of the Class of '80 (14 percent of the women and 4 percent of the men).

Because the second follow-up survey of the Class of '80 occurred less than four full years after high school, few members had enrolled in graduate programs. But 40 percent of the Class of '80 undergraduates in both 2-year and 4-year institutions did expect to enroll, including 60 percent of those studying social sciences, 55 percent of those in the physical sciences, and 34 percent of those in business. Again, those in biological sciences led the group, with 65 percent expecting to enter graduate or professional school.

Sixty-five percent of the Class of '80 reported that they used their own earnings to go to college and 56 percent received some form of help from their parents. A significant portion of students relied on assistance programs to help finance their education: 42 percent of those in 4-year institutions obtained grants and 36 percent took loans. The reliance on loans was greatest among students who were independent of their parents and attending high-tuition institutions.

The Class of 1982

Two years after high school, 33 percent of the Class of '82 were enrolled in academic postsecondary education programs and 9 percent in vocational programs. In 1984, 23 percent of the Class of '82 members attending 4-year colleges were majoring in business, 15 percent in the humanities, and 12 percent in the social sciences. The percentages of men and women in the humanities and business were within 2 percentage points. More men than women majored in the social sciences. The number of students in education dropped again, to 8 percent, representing 11 percent of the women and 5 percent of the men. Members of the Class of '82, who were about 20 years old in 1984, reported great reliance on parental support to finance postsecondary education (61 percent), but an equal proportion used their own earnings. The need for outside assistance was again widespread: 43 percent obtained grants, and 36 percent took loans.

Comparing the Classes

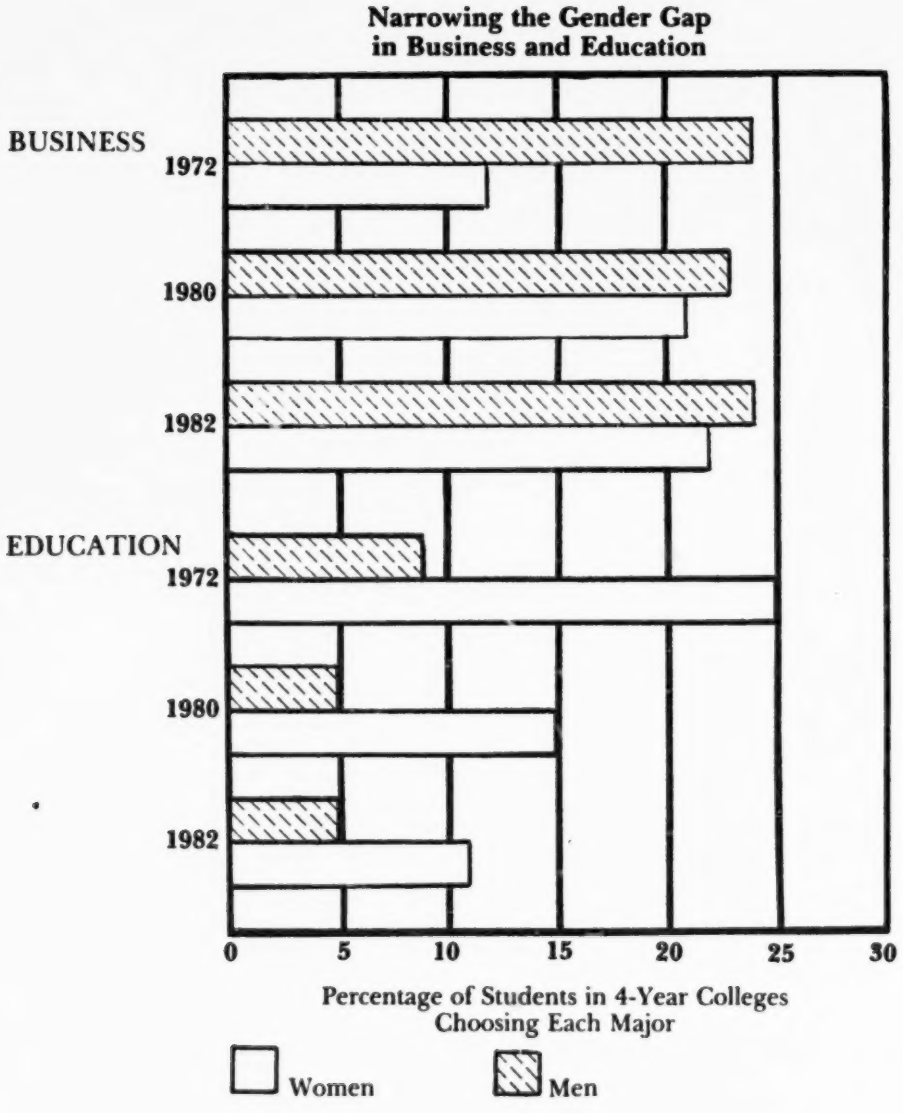
The high school graduating classes of 1972, 1980, and 1982 followed similar patterns in pursuit of higher education. Half or more of the members of each class enrolled in postsecondary education programs soon after high school, and similar percentages remained after three years. But there were some striking differences.

The popularity of business as a field of study grew over time. Business, the most frequently chosen major for all three classes, increased in popularity by 5 percentage points from the Class of '72 to the Classes of '80 and '82. (See the chart included in this section.)

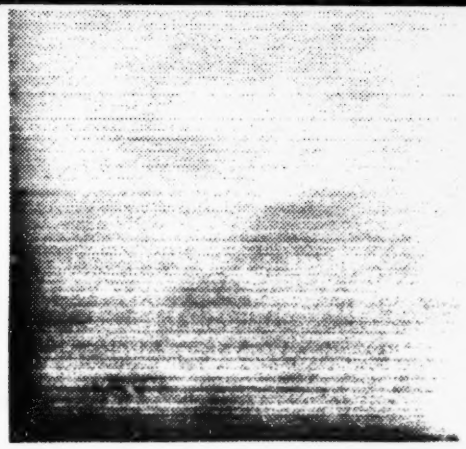
Furthermore, the gender gap displayed by the Class of '72 business students did not exist for the Classes of '80 and '82. Among business students from the Class of '72 men outnumbered women by a ratio of 2 to 1 (24 percent versus 12 percent). For the Classes of '80 and '82 the difference between men and women was only about 2 percentage points.

Women still greatly outnumber men in education, but this difference is smallest among the members of the Class of '82. For the Class of '72 the ratio of women to men taking degrees in education was 2.8 to 1. By 1983, among members of the Class of '80, this ratio had increased to 3 to 1. Among members of the Class of '82 the difference between the sexes was reduced, with a ratio of female to male education students of just over 2 to 1.

Overall, the popularity of education as a course of study fell dramatically over the ten-year period. It was the second most popular course of study for the Class of '72, and 16 percent of the class took education degrees. When the time came for the Class of '82 to choose their majors, only 8 percent chose to study education, knocking it from the top four most popular majors.



The NLS and HS&B survey data reveal a dramatic difference between the two older classes—'72 and '80—with regard to graduate study in specific fields. But it must be remembered that the surveys measured **actual behavior** for the 4-year college graduates of the Class of '72 and **plans** for the students enrolled in either 2- or 4-year colleges of the Class of '80. For example, from the Class of '72, **12 percent** of those with business degrees **went** to graduate school, and **34 percent** of the Class of '80 business majors **expected** to enroll. The most striking climb was in the social and physical sciences, where a 30 percentage point gap appears between the enrollment figures for the Class of '72 and the expectations of the Class of '80. Overall, a total of **22 percent** of the Class of '72 had **attended** graduate school by 1979, and **40 percent** of the Class of '80 **expected** to attend in 1984. It will be interesting to see if the graduate school expectations of the Class of '80 are realized, creating dramatic increases in graduate enrollments, or if the increases are more modest as plans are turned into action.



Employment

After high school, most members of the graduating Classes of 1972, 1980, and 1982 began to seek employment according to their personal timetables. Some members of each class went straight to work after high school, some delayed entry into the work force while they pursued postsecondary education. Others combined the two activities, pursuing education while holding part-time or full-time jobs. As educational enrollments dropped, the percentage of persons employed or seeking work rose.

The Class of 1972

In October 1974 the typical Class of '72 senior was 20 years of age. Sixty-eight percent of the class were working either full-time or part-time and 6 percent of those who wished to work were unemployed or on temporary lay-off. Other class members engaged in varied activities: some were full-time students, some full-time homemakers, and 5 percent were serving on active duty in the military. Four years after high school, in 1976, educational enrollments had declined and work-related activities were on the rise—up to 72 percent employed either full-time or part-time. This trend continued, with an increase of another 9 percentage points in the next three years, so that by 1979, 81 percent of the class were employed. At the same time, the unemployment rate dropped to about 4 percent and the proportion on active duty in the military to about 3 percent. White men were the most likely to be employed—92 percent—as compared to 87 percent of Blacks and 88 percent of Hispanics. Among women the reverse was true—Blacks had the highest employment rate, at 76 percent. (Seventy-two percent of White women and 71 percent of Hispanic women were employed.)

Education has had a significant impact on earnings for members of the Class of '72. In 1979, approximately 13 percent of the class had obtained bachelor's degrees and had at least two but less than four years' full-time work experience. These people earned an average of $520 more a year than the 10 percent of the class who had no postsecondary education but six or more years of work experience. It also took six or more years experience before the 10 percent of the class who had vocational or technical training, or those with some college but lacking college degrees, commanded the same salaries as college graduates who had at least two but less than four years on the job.

The Class of 1980

In the spring of 1984, 66 percent of the Class of '80 were working. Men were slightly more likely than women to be working: 67 percent of the men versus 64 percent of the women. Women were much more likely than men to be keeping house—13 percent of the women and only 1 percent of the men

had this as their sole occupation. Four percent were on active military duty and 1 percent were on temporary layoff. Six percent were unemployed and seeking work. Hispanics were more likely than those in any other racial/ethnic group to be working (71 percent), while Asians were least likely (52 percent). American Indians/Alaskan Natives and Blacks were most likely to be unemployed and looking for work.

Four percent of the class of 1980 were serving in the military on active duty in the spring of 1984 and 7 percent of the class had service experience by that time. Males were more likely than females to have had this experience. Blacks and American Indians/Alaskan Natives were more likely than those in other racial/ethnic groups to have served.

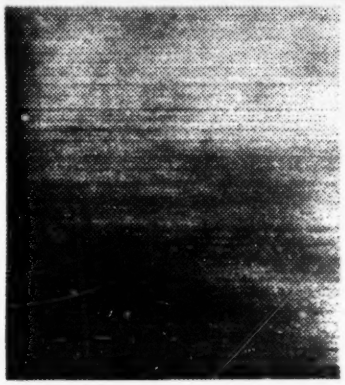
The Class of 1982

As of October 1983, more than two-thirds of the Class of 1982 were employed either full-time or part-time. The employment rate for young women was about 8 percentage points below that for men. Considering that a higher percentage of women than men reported being married and having children, the gap is not surprising. Persons who dropped out of high school reported a lower employment rate, by 13 percentage points, but a slightly higher average wage.

A total of 6 percent of the Class of 1982 had served in the military by 1984. Eleven percent of the men and 1 percent of the women had done so. Eight percent of the Blacks, 7 percent of the American Indians/Alaskan Natives, 6 percent of the Hispanics and Whites, and 3 percent of the Asians had military experience. In general, members of the Class of 1982 who graduated from high school were much more likely to have served in the military than were dropouts. Seven percent of the Class of '82 high school graduates elected to serve in the armed forces as compared to 2 percent of the high school dropouts. Considering that graduates greatly outnumber dropouts, the military is attracting, by and large, a relatively small proportion of dropouts.

Comparing the Classes

After high school the Classes of '72, 80, and '82 began a gradual march into the job market. All behaved similarly, with the percentages working increasing with the number of years out of high school. For example, 68 percent of the Class of '72 were employed in 1974. By 1976 that figure had risen to 72 percent and in 1979 it stood at 81 percent. The unemployment rates and military enlistment rates for each class were approximately equal.



Marriage And Children

As the high school classes of 1972, 1980, and 1982 aged, marriage and child-bearing became increasingly important factors in their lives. From the survey data, we can see who is most likely to have been married, divorced, or separated, and to have children.

The Class of 1972

As of 1979, 57 percent of the men and 70 percent of the women in the Class of '72 had been married; of this group, 11 percent had been divorced, widowed, or separated. This was more likely to happen to women than to men—14 percent of the women and only 9 percent of the men were divorced, remarried, separated, or widowed—probably because the women had, on average, been married longer.

People who continued their educations after high school—especially those who had bachelor's degrees—were less likely to have been married: 46 percent of those with bachelor's degrees, and 62 percent who had some post-high-school education but not a degree, had been married by 1979. In contrast, 76 percent of the high school graduates with no postsecondary education had been married.

Of those members of the Class of 1972 who had married by 1979, most expected to have children (93 percent), but only 56 percent had already done so.

The Class of 1980

By February 1984, nearly four years after completing high school, 26 percent of the Class of '80 had been married—of these, 24 percent were currently married and the other 2 percent were widowed, separated, or divorced. Women were far more likely than men to have been married (33 percent versus 20 percent) and slightly more likely than men to be divorced, widowed, or separated (3 percent versus 2 percent). Women were more likely than men to be parents: 21 percent of them reported having children in February 1984, versus 12 percent of the men.

Again, as in the Class of '72, involvement in education after high school affected marriage rates. From 6 to 9 percent of male full-time students and 9 to 17 percent of female full-time students had ever been married by the Spring of 1984. In contrast, among the nonstudents 27 percent of the men and 46 percent of the women had ever been married.

The Class of 1982

In 1984, most members of the Class of '82 were twenty years old, and therefore it is not surprising that most of them remained unmarried. Only 7 percent of the men and 18 percent of the women indicated they were married as of 1984. Very few reported being divorced or separated. Members of the Class of '82 were also asked to indicate if they were living with a person of the opposite sex to whom they were not married in 1984. Their answers revealed that marriage is more common than cohabitation among the members of this class—12 percent were married, 4 percent were cohabiting.

The rate of marriage varied somewhat across regions of the country. People who went to high schools in the South were most likely to have been married in Spring 1984 (18 percent), and Easterners were least likely (7 percent). Marriage was somewhat more common among people from rural high schools than those from urban and suburban schools.

The overall proportion of the Class of 1982 who had children was the same as the overall proportion married—12 percent. However, there was an enormous difference here with regard to education: the percentage of high school dropouts reporting they had children was about four times as high as the percentage of high school graduates (36 compared to 9).

Comparing the Classes

Among all three cohorts, more women were married than men, more women had children, and more women had been divorced or separated. Women are, however, marrying later than they used to. In 1976, four years after their high school graduation, 53 percent of the women in the Class of '72 reported that they were then or had been married. In 1984, only 33 percent of the women of the Class of '80 said they had been married.

Life Goals

Data from the surveys of the high school classes of 1972, 1980, and 1982 show that young people's values have remained remarkably constant over the twelve-year period—1972 to 1984—covered by the surveys. This is especially striking in view of two facts: one, that the period from age 17 to 25 is a time of great change, decision-making, and personal growth for most people; and two, that the United States underwent major social changes during these particular years—including the end of the Vietnam War, Watergate, economic upheaval, and a series of Presidents with radically different political philosophies and personal styles.

The Classes of 1972, 1980, and 1982 were all asked the same series of questions on personal values and goals—how much importance they attached to success in work, working to correct social and economic inequalities, having a happy marriage and family life, and the like. The chart below shows how each class rated these basic life values at two points in time: their senior year of high school, and the most recent followup survey. (For the Class of 1972, the most recent followup survey was in 1979, when the survey participants were about 25 years old. The Classes of 1980 and 1982 were last surveyed in 1984, when they were about 21 years old and 19 years old, respectively.)

Evaluation of Life Goals by the Classes of 1972, 1980, and 1982

Percentage of Each Class Who Said This Was "Very Important"

Life Goals	Class of '72 in 1972	Class of '72 in 1979	Class of '80 in 1980	Class of '80 in 1984	Class of '82 in 1982	Class of '82 in 1984
Being successful in my line of work	84	75	86	80	86	86
Finding the right person to marry and having a happy family life	82	87	78	86	84	88
Having lots of money	17	16	30	25	33	28
Having strong friendships	79	74	79	76	79	80
Being able to find steady work	77	69	82	79	85	85
Living close to parents and relatives	8	12	13	18	16	18
Being a leader in my community	11	6	9	10	8	10
Giving my children better opportunities than I've had	66	56	65	64	71	71
Working to correct social and economic inequalities	27	14	13	13	12	14
Having leisure time to enjoy my own interests	not available	63	68	72	69	73
Moving to another area of the country	not available	not available	14	7	13	10

The answers given suggest that the views of each class remained fairly stable over time, and that, in general, the three high school classes share the same basic values. However, as is apparent from the table included here, there are some differences between the classes, and some differences within the classes over time.

One of the most dramatic changes in attitudes over the twelve-year period from 1972 to 1984 took place during the 1970s, among members of the Class of '72. Between 1972 and 1979, the number of people who considered it very important to work to correct social and economic inequalities decreased by 13 percentage points. In later years, the number of people in all the classes who placed great importance on working to correct inequalities remained at this new lower level (12 to 14 percent).

The table also shows a striking contrast between the Class of '72 and the younger classes with respect to how much importance they attach to having lots of money. Among the Class of '72, only 17 percent thought this was very important in 1972, and this remained almost constant, at 16 percent, in 1979. However, a year later, 30 percent of the Class of '80 believed it was important to be rich, and two years after that, 33 percent of the Class of '82 had the same view as they graduated from high school.

However, by 1984 both younger classes showed a 5 point decrease in the ratings given to having lots of money. Furthermore, it is apparent from the table that having leisure time gets much higher ratings than being rich. Year after year, the proportion of people who assigned great importance to having lots of money was only one-fourth to one-half the proportion who felt it was important to have leisure time to enjoy their own interests.

Appendix C: Cover Letter for Questionnaire
Reminder Postcard

NATIONAL LONGITUDINAL STUDIES PROGRAM

High School and Beyond
a national longitudinal
study for the 1980s

**Sponsored by the National Center for Education Statistics,
U.S. Department of Education**

72

National Longitudinal
Study of the High School
Class of 1972

February 1986

Dear High School and Beyond Participant:

In November, we sent you a letter indicating that the High School and Beyond Survey was once again underway. Now we are sending a questionnaire which we would like you to fill out.

The Third Follow-Up of the High School and Beyond Survey has been designed to gather information about the experiences of young adults after they leave high school and go on to college, work, or other activities. Your participation is very important. It is also completely voluntary. If there are any questions you would prefer not to answer, simply leave them blank.

Since many questions in the questionnaire refer to specific dates, such as the first week in February, it is important that you complete the questionnaire as soon as possible. We hope that you will be able to mail the completed questionnaire within the next two weeks. If this is not possible, please send the questionnaire as soon as you can find the time to complete it.

The questionnaire will be processed using special computerized equipment. Therefore, it is extremely important that you use a #2 pencil when filling out your questionnaire. Otherwise, the computer will not be able to read your answers. A pencil has been enclosed for your convenience.

A postage-paid envelope has been included for you to return the questionnaire to us. A check for $5.00 is also enclosed as a gesture of appreciation for your help.

If you have any questions about the survey or the questionnaire, please call collect to: Chris Russell, (312) 962-1114 between 9:00 a.m. and 5:00 p.m., Central Standard time, Monday through Friday. Thank you for your help.

Sincerely,

Barbara K. Campbell

Barbara K. Campbell
Project Director

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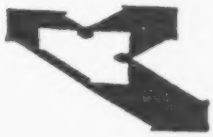
July 1986



Dear Education Survey Participant:

Thank you for completing and returning your NLS-72 or HS&B questionnaire so promptly. We noticed that you have omitted one or two questions. We need to ask for your response to those questions, even if only to verify that you prefer not to answer. This will take a couple of minutes and your responses will be strictly confidential. Please call Carolyn Miller, collect, at area code 312, 962-6573 between 9 AM and 8 PM, Central Time. Thank you in advance for your help.

Barbara K. Campbell, Ph.D.
Project Director
Education Longitudinal Studies

H.S.T

Appendix D: Design Effects and Sampling Errors

High School and Beyond Third Follow-Up Estimated Percentages,
Standard Errors and Design Effects, Using Third Follow-Up Data
Sophomore Cohort - Total Population

Survey Item (or Composite Variable)		Estimate	SE	DEFF	DEFT	N	SE-SRS
Working at Full or Part Time Job, Feb '86	TY3A	67.47	0.58	2.02	1.42	13383	0.40
Taking Academic Courses, Feb '86	TY3C	26.84	0.63	2.68	1.64	13383	0.38
Looking For Work, Feb '86	TY3I	9.58	0.36	2.05	1.43	13383	0.25
Currently Married	TY41	23.14	0.56	2.36	1.54	13342	0.37
Currently Divorced	TY41	1.85	0.17	2.00	1.42	13342	0.12
Currently Have One or More Children	TY49	22.33	0.58	2.55	1.60	13337	0.36
Expect to Have Three or More Children	TY48	31.72	0.60	2.16	1.47	12881	0.41
In PSE 84-86: Earned No Degree	TY21I-22I	21.36	1.15	2.05	1.43	2612	0.80
In PSE 84-86: Received Vocational Degree	TY21H-22H	27.98	1.42	2.60	1.61	2602	0.88
In PSE 84-86: Received 4 Year Degree	TY21H-22H	31.36	1.35	2.22	1.49	2602	0.91
Enrolled in PSE, Oct '84	TY21C-22C	32.11	0.66	2.64	1.63	13225	0.41
Enrolled in PSE, Oct '85	TY21C-22C	28.36	0.61	2.45	1.56	13225	0.39
In PSE 84-86: V. Dissat W/Career Couns	TY28E	5.52	0.41	2.07	1.44	6363	0.29
In PSE 84-86: Some Sat With Curriculum	TY28I	50.11	0.84	1.78	1.33	6368	0.63
Applied for Grad/Professional School	TY39	4.46	0.28	2.23	1.49	12573	0.18
If Employed 84-86, 1st Job Clerical	TY8A	24.83	0.53	1.88	1.37	12435	0.39
Had Any Job Between 84-86	TY7	93.81	0.30	2.10	1.45	13395	0.21
Did Not Receive Unemployment-'85	TY17D85	86.41	0.82	2.16	1.47	3769	0.56
Currently Registered to Vote	TY56	66.40	0.67	2.58	1.60	12803	0.42
Have Voted Since 1984	TY57	51.13	0.70	2.47	1.57	12784	0.44
Active Participant in Service Org	TY59K	1.49	0.13	1.40	1.18	12689	0.11
Job Security Very Important	TY16C	75.74	0.56	2.13	1.46	12532	0.38
Success in Job Very Important	TY68A	79.88	0.51	2.03	1.43	12800	0.35
Marrying the Right Person Very Important	TY68B	86.36	0.44	2.14	1.46	12774	0.30
Having Lots of Money Very Important	TY68C	22.68	0.52	1.94	1.39	12806	0.37
Being a Community Leader Very Important	TY68F	6.65	0.31	1.97	1.40	12793	0.22
Providing Better Opp for Kids Very Imp	TY68G	69.65	0.65	2.54	1.59	12757	0.41
Correcting Social Inequalities Very Imp	TY68J	11.02	0.42	2.32	1.52	12744	0.28
Having Children Very Important	TY68K	47.85	0.64	2.08	1.44	12789	0.44
Having Leisure Time Very Important	TY68L	68.21	0.59	2.05	1.43	12811	0.41
Mean				2.19	1.48		
Minimum				1.40	1.18		
Maximum				2.68	1.64		
Standard Deviation				0.29	0.10		
Median				2.14	1.46		

~~LFJ~~

High School and Beyond Third Follow-Up Estimated Percentages,
Standard Errors and Design Effects, Using Third Follow-Up Data
Sophomore Cohort - Hispanic

Survey Item (or Composite Variable)		Estimate	SE	DEFF	DEFT	N	SE-SRS
Working at Full or Part Time Job, Feb '86	TY3A	71.28	1.79	3.36	1.83	2141	0.98
Taking Academic Courses, Feb '86	TY3C	14.04	1.12	2.23	1.49	2141	0.75
Looking for Work, Feb '86	TY3I	11.06	1.43	4.42	2.10	2141	0.68
Currently Married	TY41	22.51	1.56	2.98	1.73	2129	0.91
Currently Divorced	TY41	1.60	0.35	1.69	1.30	2129	0.27
Currently Have One or More Children	TY49	28.88	1.92	3.84	1.96	2132	0.98
Expect to Have Three or More Children	TY48	32.19	1.74	2.82	1.68	2033	1.04
In PSE 84-86: Earned No Degree	TY21I-22I	20.76	3.69	2.73	1.65	330	2.23
In PSE 84-86: Received Vocational Degree	TY21H-22H	44.06	6.37	5.40	2.32	328	2.74
In PSE 84-86: Received 4 Year Degree	TY21H-22H	11.66	2.63	2.20	1.48	328	1.77
Enrolled in PSE, Oct '84	TY21C-22C	19.26	1.42	2.74	1.66	2116	0.86
Enrolled in PSE, Oct '85	TY21C-22C	17.34	1.30	2.51	1.58	2116	0.82
In PSE 84-86: V. Dissat W/Career Couns	TY28E	5.02	1.16	2.50	1.58	893	0.73
In PSE 84-86: Some Sat With Curriculum	TY28I	46.26	3.10	3.45	1.86	894	1.67
Applied for Grad/Professional School	TY39	3.47	0.81	3.80	1.95	1948	0.41
If Employed 84-86, 1st Job Clerical	TY8A	25.92	1.67	2.83	1.68	1947	0.99
Had Any Job Between 84-86	TY7	92.71	0.92	2.66	1.63	2140	0.56
Did Not Receive Unemployment-'85	TY17D85	85.73	2.32	2.79	1.67	632	1.39
Currently Registered to Vote	TY56	61.34	2.15	3.88	1.97	1994	1.09
Have Voted Since 1984	TY57	44.54	2.17	3.80	1.95	1990	1.11
Active Participant in Service Org	TY59K	0.74	0.27	1.89	1.38	1976	0.19
Job Security Very Important	TY16C	76.17	1.80	3.48	1.87	1950	0.96
Success in Job Very Important	TY68A	82.54	1.42	2.80	1.67	1996	0.85
Marrying the Right Person Very Important	TY68B	86.50	1.49	3.79	1.95	1995	0.77
Having Lots of Money Very Important	TY68C	28.07	1.77	3.11	1.76	2001	1.00
Being a Community Leader Very Important	TY68F	9.28	1.15	3.12	1.77	2000	0.65
Providing Better Opp for Kids Very Imp	TY68G	84.78	1.33	2.71	1.65	1992	0.80
Correcting Social Inequalities Very Imp	TY68J	13.01	1.31	3.00	1.73	1986	0.75
Having Children Very Important	TY68K	45.67	2.08	3.49	1.87	1995	1.12
Having Leisure Time Very Important	TY68L	62.77	2.00	3.41	1.85	2003	1.08
Mean				3.11	1.75		
Minimum				1.69	1.30		
Maximum				5.40	2.32		
Standard Deviation				0.76	0.21		
Median				2.99	1.73		

High School and Beyond Third Follow-Up Estimated Percentages,
Standard Errors and Design Effects, Using Third Follow-Up Data
Sophomore Cohort - Black

Survey Item (or Composite Variable)		Estimate	SE	DEFF	DEFT	N	SE-SRS
Working at Full or Part Time Job, Feb '86	TY3A	63.05	1.53	1.97	1.40	1954	1.09
Taking Academic Courses, Feb '86	TY3C	16.86	1.10	1.70	1.30	1954	0.85
Looking For Work, Feb '86	TY3I	15.19	1.19	2.13	1.46	1954	0.81
Currently Married	TY41	13.98	1.17	2.19	1.48	1938	0.79
Currently Divorced	TY41	0.92	0.31	2.07	1.44	1938	0.22
Currently Have One or More Children	TY49	38.22	1.67	2.28	1.51	1933	1.11
Expect to Have Three or More Children	TY48	29.10	1.50	2.05	1.43	1873	1.05
In PSE 84-86: Earned No Degree	TY21I-22I	17.71	3.01	2.02	1.42	326	2.11
In PSE 84-86: Received Vocational Degree	TY21H-22H	53.58	4.63	2.79	1.67	324	2.77
In PSE 84-86: Received 4 Year Degree	TY21H-22H	15.88	2.76	1.85	1.36	324	2.03
Enrolled in PSE, Oct '84	TY21C-22C	24.60	1.42	2.07	1.44	1911	0.99
Enrolled in PSE, Oct '85	TY21C-22C	18.02	1.20	1.85	1.36	1911	0.88
In PSE 84-86: V. Dissat W/Career Couns	TY28E	9.74	1.55	2.43	1.56	886	1.00
In PSE 84-86: Some Sat With Curriculum	TY28I	46.55	2.46	2.15	1.47	882	1.68
Applied for Grad/Professional School	TY39	5.01	0.88	2.92	1.71	1812	0.51
If Employed 84-86, 1st Job Clerical	TY8A	27.35	1.69	2.49	1.58	1738	1.07
Had Any Job Between 84-86	TY7	89.50	1.04	2.24	1.50	1947	0.69
Did Not Receive Unemployment-'85	TY17D85	90.83	1.56	2.23	1.49	760	1.05
Currently Registered to Vote	TY56	74.82	1.62	2.59	1.61	1860	1.01
Have Voted Since 1984	TY57	54.53	1.84	2.52	1.59	1854	1.16
Active Participant in Service Org	TY59K	1.65	0.33	1.24	1.11	1837	0.30
Job Security Very Important	TY16C•	79.41	1.39	2.14	1.46	1820	0.95
Success in Job Very Important	TY68A.	87.19	1.21	2.44	1.56	1855	0.78
Marrying the Right Person Very Important	TY68B	84.44	1.25	2.20	1.48	1849	0.84
Having Lots of Money Very Important	TY68C	33.03	1.54	2.00	1.41	1855	1.09
Being a Community Leader Very Important	TY68F	10.93	1.17	2.61	1.62	1852	0.73
Providing Better Opp for Kids Very Imp	TY68G	87.04	1.27	2.64	1.62	1852	0.78
Correcting Social Inequalities Very Imp	TY68J	23.26	1.48	2.25	1.50	1845	0.98
Having Children Very Important	TY68K	37.20	1.40	1.56	1.25	1854	1.12
Having Leisure Time Very Important	TY68L	63.06	1.62	2.09	1.45	1855	1.12
Mean				2.19	1.47		
Minimum				1.24	1.11		
Maximum				2.92	1.71		
Standard Deviation				0.36	0.13		
Median				2.17	1.48		

High School and Beyond Third Follow-Up Estimated Percentages,
Standard Errors and Design Effects, Using Third Follow-Up Data
Sophomore Cohort - Whites and Others

Survey Item (or Composite Variable)		Estimate	SE	DEFF	DEFT	N	SE-SRS
Working at Full or Part Time Job, Feb '86	TY3A	67.83	0.68	1.95	1.40	9288	0.48
Taking Academic Courses, Feb '86	TY3C	29.81	0.73	2.38	1.54	9288	0.47
Looking For Work, Feb '86	TY3I	8.48	0.39	1.83	1.35	9288	0.29
Currently Married	TY41	24.73	0.66	2.14	1.46	9275	0.45
Currently Divorced	TY41	2.03	0.20	1.89	1.37	9275	0.15
Currently Have One or More Children	TY49	19.03	0.59	2.07	1.44	9272	0.41
Expect to Have Three or More Children	TY48	32.11	0.70	2.01	1.42	8975	0.49
In PSE 84-86: Earned No Degree	TY21I-22I	21.83	1.27	1.84	1.36	1956	0.93
In PSE 84-86: Received Vocational Degree	TY21H-22H	24.10	1.40	2.09	1.45	1950	0.97
In PSE 84-86: Received 4 Year Degree	TY21H-22H	34.26	1.51	1.97	1.41	1950	1.07
Enrolled in PSE, Oct '84	TY21C-22C	34.62	0.76	2.36	1.54	9198	0.50
Enrolled in PSE, Oct '85	TY21C-22C	31.16	0.72	2.20	1.48	9198	0.48
In PSE 84-86: V. Dissat W/Career Couns	TY28E	5.01	0.43	1.81	1.35	4584	0.32
In PSE 84-86: Some Sat With Curriculum	TY28I	51.18	0.93	1.57	1.25	4592	0.74
Applied for Grad/Professional School	TY39	4.46	0.30	1.87	1.37	8813	0.22
If Employed 84-86, 1st Job Clerical	TY8A	24.33	0.58	1.59	1.26	8750	0.46
Had Any Job Between 84-86	TY7	94.64	0.32	1.87	1.37	9308	0.23
Did Not Receive Unemployment-'85	TY17D85	85.38	1.02	1.98	1.41	2377	0.72
Currently Registered to Vote	TY56	65.48	0.75	2.21	1.49	8949	0.50
Have Voted Since 1984	TY57	51.19	0.76	2.06	1.44	8940	0.53
Active Participant in Service Org	TY59K	1.53	0.15	1.32	1.15	8876	0.13
Job Security Very Important	TY16C	75.09	0.64	1.92	1.39	8762	0.46
Success in Job Very Important	TY68A	78.42	0.58	1.80	1.34	8949	0.43
Marrying the Right Person Very Important	TY68B	86.66	0.49	1.88	1.37	8930	0.36
Having Lots of Money Very Important	TY68C	20.45	0.55	1.68	1.30	8950	0.43
Being a Community Leader Very Important	TY68F	5.69	0.31	1.62	1.27	8941	0.24
Providing Better Opp for Kids Very Imp	TY68G	65.33	0.72	2.06	1.43	8913	0.50
Correcting Social Inequalities Very Imp	TY68J	8.80	0.41	1.87	1.37	8913	0.30
Having Children Very Important	TY68K	49.82	0.74	1.94	1.39	8940	0.53
Having Leisure Time Very Important	TY68L	69.58	0.66	1.84	1.36	8953	0.49
Mean				1.92	1.38		
Minimum				1.32	1.15		
Maximum				2.38	1.54		
Standard Deviation				0.23	0.08		
Median				1.91	1.38		

High School and Beyond Third Follow-Up Estimated Percentages,
Standard Errors and Design Effects, Using Third Follow-Up Data
Sophomore Cohort - Female

Survey Item (or Composite Variable)		Estimate	SE	DEFF	DEFT	N	SE-SRS
Working at Full or Part Time Job, Feb '86	TY3A	64.65	0.85	2.16	1.47	6917	0.57
Taking Academic Courses, Feb '86	TY3C	27.13	0.77	2.05	1.43	6917	0.53
Looking For Work, Feb '86	TY3I	9.49	0.51	2.09	1.45	6917	0.35
Currently Married	TY41	29.70	0.86	2.42	1.55	6899	0.55
Currently Divorced	TY41	2.48	0.25	1.73	1.31	6899	0.19
Currently Have One or More Children	TY49	29.31	0.82	2.26	1.50	6906	0.55
Expect to Have Three or More Children	TY48	32.72	0.81	2.00	1.41	6723	0.57
In PSE 84-86: Earned No Degree	TY21I-22I	19.95	1.54	2.25	1.50	1508	1.03
In PSE 84-86: Received Vocational Degree	TY21H-22H	28.65	1.81	2.41	1.55	1504	1.17
In PSE 84-86: Received 4 Year Degree	TY21H-22H	30.90	1.62	1.84	1.36	1504	1.19
Enrolled in PSE, Oct '84	TY21C-22C	33.80	0.84	2.15	1.47	6833	0.57
Enrolled in PSE, Oct '85	TY21C-22C	28.90	0.79	2.05	1.43	6833	0.55
In PSE 84-86: V. Dissat W/Career Couns	TY28E	5.12	0.52	1.89	1.38	3404	0.38
In PSE 84-86: Some Sat With Curriculum	TY28I	49.64	1.15	1.81	1.35	3411	0.86
Applied for Grad/Professional School	TY39	4.18	0.37	2.21	1.49	6538	0.25
If Employed 84-86, 1st Job Clerical	TY8A	39.76	0.89	2.06	1.44	6259	0.62
Had Any Job Between 84-86	TY7	90.91	0.52	2.24	1.50	6922	0.35
Did Not Receive Unemployment-'85	TY17085	91.32	0.84	1.86	1.36	2117	0.61
Currently Registered to Vote	TY56	65.57	0.87	2.24	1.50	6669	0.58
Have Voted Since 1984	TY57	51.42	0.93	2.32	1.52	6659	0.61
Active Participant in Service Org	TY59K	1.26	0.17	1.51	1.23	6600	0.14
Job Security Very Important	TY16C	76.15	0.80	2.27	1.51	6496	0.53
Success in Job Very Important	TY68A	76.52	0.73	1.99	1.41	6666	0.52
Marrying the Right Person Very Important	TY68B	86.65	0.61	2.13	1.46	6658	0.42
Having Lots of Money Very Important	TY68C	17.38	0.64	1.92	1.38	6676	0.46
Being a Community Leader Very Important	TY68F	4.47	0.36	1.98	1.41	6665	0.25
Providing Better Opp for Kids Very Imp	TY68G	69.32	0.82	2.10	1.45	6653	0.57
Correcting Social Inequalities Very Imp	TY68J	11.04	0.54	2.00	1.41	6638	0.38
Having Children Very Important	TY68K	54.59	0.83	1.85	1.36	6663	0.61
Having Leisure Time Very Important	TY68L	67.20	0.78	1.82	1.35	6674	0.57
Mean				2.06	1.43		
Minimum				1.51	1.23		
Maximum				2.42	1.55		
Standard Deviation				0.21	0.07		
Median				2.06	1.44		

High School and Beyond Third Follow-Up Estimated Percentages,
Standard Errors and Design Effects, Using Third Follow-Up Data
Sophomore Cohort - Male

Survey Item (or Composite Variable)		Estimate	SE	DEFF	DEFT	N	SE-SRS
Working at Full or Part Time Job, Feb '86	TY3A	70.32	0.74	1.69	1.30	6466	0.57
Taking Academic Courses, Feb '86	TY3C	26.54	0.85	2.38	1.54	6466	0.55
Looking For Work, Feb '86	TY3I	9.67	0.53	2.08	1.44	6466	0.37
Currently Married	TY41	16.45	0.68	2.15	1.47	6443	0.46
Currently Divorced	TY41	1.21	0.22	2.59	1.61	6443	0.14
Currently Have One or More Children	TY49	15.19	0.69	2.38	1.54	6431	0.45
Expect to Have Three or More Children	TY48	30.68	0.85	2.10	1.45	6158	0.59
In PSE 84-86: Earned No Degree	TY21I-22I	23.17	1.69	1.77	1.33	1104	1.27
In PSE 84-86: Received Vocational Degree	TY21H-22H	27.13	1.97	2.15	1.47	1098	1.34
In PSE 84-86: Received 4 Year Degree	TY21H-22H	31.96	1.98	1.97	1.40	1098	1.41
Enrolled in PSE, Oct '84	TY21C-22C	30.39	0.87	2.28	1.51	6392	0.58
Enrolled in PSE, Oct '85	TY21C-22C	27.81	0.82	2.16	1.47	6392	0.56
In PSE 84-86: V. Dissat W/Career Couns	TY28E	5.97	0.65	2.22	1.49	2959	0.44
In PSE 84-86: Some Sat With Curriculum	TY28I	51.27	1.28	1.95	1.40	2957	0.92
Applied for Grad/Professional School	TY39	4.75	0.41	2.19	1.48	6035	0.27
If Employed 84-86, 1st Job Clerical	TY8A	10.54	0.54	1.89	1.37	6176	0.39
Had Any Job Between 84-86	TY7	96.75	0.29	1.73	1.32	6473	0.22
Did Not Receive Unemployment-'85	TY17D85	80.47	1.50	2.35	1.53	1652	0.98
Currently Registered to Vote	TY56	67.26	0.87	2.10	1.45	6134	0.60
Have Voted Since 1984	TY57	50.82	0.93	2.11	1.45	6125	0.64
Active Participant in Service Org	TY59K	1.72	0.20	1.37	1.17	6089	0.17
Job Security Very Important	TY16C	75.32	0.77	1.94	1.39	6036	0.55
Success in Job Very Important	TY68A	83.38	0.67	2.01	1.42	6134	0.48
Marrying the Right Person Very Important	TY68B	86.06	0.65	2.17	1.47	6116	0.44
Having Lots of Money Very Important	TY68C	28.19	0.81	2.00	1.41	6130	0.57
Being a Community Leader Very Important	TY68F	8.91	0.49	1.81	1.34	6128	0.36
Providing Better Opp for Kids Very Imp	TY68G	69.99	0.88	2.25	1.50	6104	0.59
Correcting Social Inequalities Very Imp	TY68J	10.99	0.58	2.11	1.45	6106	0.40
Having Children Very Important	TY68K	40.82	0.94	2.22	1.49	6126	0.63
Having Leisure Time Very Important	TY68L	69.25	0.83	1.99	1.41	6137	0.59
Mean				2.07	1.44		
Minimum				1.37	1.17		
Maximum				2.59	1.61		
Standard Deviation				0.24	0.09		
Median				2.11	1.45		

High School and Beyond Third Follow-Up Estimated Percentages,
Standard Errors and Design Effects, Using Third Follow-Up Data
Sophomore Cohort - Lowest Quartile SES

Survey Item (or Composite Variable)		Estimate	SE	DEFF	DEFT	N	SE-SRS
Working at Full or Part Time Job, Feb '86	TY3A	66.49	1.14	2.09	1.44	3555	0.79
Taking Academic Courses, Feb '86	TY3C	9.78	0.63	1.57	1.25	3555	0.50
Looking For Work, Feb '86	TY3I	14.00	0.75	1.67	1.29	3555	0.58
Currently Married	TY41	31.39	1.18	2.28	1.51	3536	0.78
Currently Divorced	TY41	1.88	0.27	1.43	1.19	3536	0.23
Currently Have One or More Children	TY49	33.60	1.07	1.81	1.35	3541	0.79
Expect to Have Three or More Children	TY48	27.34	1.03	1.83	1.35	3422	0.76
In PSE 84-86: Earned No Degree	TY21I-22I	11.91	1.99	1.55	1.25	413	1.59
In PSE 84-86: Received Vocational Degree	TY21H-22H	59.56	3.47	2.04	1.43	407	2.43
In PSE 84-86: Received 4 Year Degree	TY21H-22H	9.18	1.65	1.33	1.15	407	1.43
Enrolled in PSE, Oct '84	TY21C-22C	13.70	0.74	1.61	1.27	3508	0.58
Enrolled in PSE, Oct '85	TY21C-22C	12.59	0.76	1.82	1.35	3508	0.56
In PSE 84-86: V. Dissat W/Career Couns	TY28E	5.22	0.91	1.76	1.33	1064	0.68
In PSE 84-86: Some Sat With Curriculum	TY28I	48.62	2.16	1.98	1.41	1060	1.54
Applied for Grad/Professional School	TY39	2.96	0.43	2.16	1.47	3298	0.30
If Employed 84-86, 1st Job Clerical	TY8A	23.47	1.04	1.92	1.39	3178	0.75
Had Any Job Between 84-86	TY7	90.95	0.62	1.68	1.30	3556	0.48
Did Not Receive Unemployment-'85	TY17D85	83.42	1.46	1.92	1.38	1246	1.05
Currently Registered to Vote	TY56	58.44	1.27	2.27	1.51	3391	0.85
Have Voted Since 1984	TY57	41.10	1.29	2.31	1.52	3389	0.85
Active Participant in Service Org	TY59K	0.59	0.15	1.22	1.10	3355	0.13
Job Security Very Important	TY16C	79.32	0.93	1.74	1.32	3293	0.71
Success in Job Very Important	TY68A	78.29	0.96	1.84	1.36	3382	0.71
Marrying the Right Person Very Important	TY68B	88.16	0.74	1.79	1.34	3379	0.56
Having Lots of Money Very Important	TY68C	23.23	1.01	1.94	1.39	3387	0.73
Being a Community Leader Very Important	TY68F	5.75	0.56	1.92	1.39	3381	0.40
Providing Better Opp for Kids Very Imp	TY68G	82.17	0.94	2.04	1.43	3379	0.66
Correcting Social Inequalities Very Imp	TY68J	10.90	0.70	1.67	1.29	3367	0.54
Having Children Very Important	TY68K	45.14	1.17	1.87	1.37	3383	0.86
Having Leisure Time Very Important	TY68L	63.10	1.12	1.83	1.35	3387	0.83
Mean				1.83	1.35		
Minimum				1.22	1.10		
Maximum				2.31	1.52		
Standard Deviation				0.26	0.10		
Median				1.83	1.35		

High School and Beyond Third Follow-Up Estimated Percentages,
Standard Errors and Design Effects, Using Third Follow-Up Data
Sophomore Cohort - Two Middle Quartiles SES

Survey Item (or Composite Variable)		Estimate	SE	DEFF	DEFT	N	SE-SRS
Working at Full or Part Time Job, Feb '86	TY3A	70.76	0.79	1.99	1.41	6588	0.56
Taking Academic Courses, Feb '86	TY3C	22.54	0.67	1.68	1.30	6588	0.51
Looking For Work, Feb '86	TY3I	8.88	0.52	2.22	1.49	6588	0.35
Currently Married	TY41	23.92	0.79	2.24	1.50	6574	0.53
Currently Divorced	TY41	2.12	0.26	2.10	1.45	6574	0.18
Currently Have One or More Children	TY49	23.17	0.80	2.38	1.54	6568	0.52
Expect to Have Three or More Children	TY48	30.29	0.86	2.24	1.50	6339	0.58
In PSE 84-86: Earned No Degree	TY21I-22I	19.33	1.60	1.95	1.39	1179	1.15
In PSE 84-86: Received Vocational Degree	TY21H-22H	31.04	1.94	2.07	1.44	1175	1.35
In PSE 84-86: Received 4 Year Degree	TY21H-22H	24.57	1.66	1.75	1.32	1175	1.26
Enrolled in PSE, Oct '84	TY21C-22C	28.23	0.75	1.81	1.35	6508	0.56
Enrolled in PSE, Oct '85	TY21C-22C	24.65	0.70	1.73	1.32	6508	0.53
In PSE 84-86: V. Dissat W/Career Couns	TY28E	5.93	0.64	2.18	1.48	2964	0.43
In PSE 84-86: Some Sat With Curriculum	TY28I	50.44	1.27	1.93	1.39	2968	0.92
Applied for Grad/Professional School	TY39	3.65	0.37	2.41	1.55	6179	0.24
If Employed 84-86, 1st Job Clerical	TY8A	24.87	0.73	1.78	1.33	6176	0.55
Had Any Job Between 84-86	TY7	94.23	0.43	2.28	1.51	6599	0.29
Did Not Receive Unemployment-'85	TY17D85	85.29	1.24	2.21	1.49	1820	0.83
Currently Registered to Vote	TY56	65.47	0.92	2.33	1.53	6296	0.60
Have Voted Since 1984	TY57	50.07	0.95	2.24	1.50	6281	0.63
Active Participant in Service Org	TY59K	1.46	0.18	1.43	1.20	6245	0.15
Job Security Very Important	TY16C	77.66	0.77	2.11	1.45	6178	0.53
Success in Job Very Important	TY68A	79.44	0.75	2.16	1.47	6303	0.51
Marrying the Right Person Very Important	TY68B	86.03	0.67	2.35	1.53	6289	0.44
Having Lots of Money Very Important	TY68C	22.57	0.70	1.74	1.32	6303	0.53
Being a Community Leader Very Important	TY68F	6.47	0.47	2.31	1.52	6300	0.31
Providing Better Opp for Kids Very Imp	TY68G	70.29	0.79	1.88	1.37	6280	0.58
Correcting Social Inequalities Very Imp	TY68J	10.55	0.58	2.24	1.50	6270	0.39
Having Children Very Important	TY68K	47.78	0.89	2.00	1.42	6294	0.63
Having Leisure Time Very Important	TY68L	68.16	0.85	2.10	1.45	6308	0.59
Mean				2.06	1.43		
Minimum				1.43	1.20		
Maximum				2.41	1.55		
Standard Deviation				0.25	0.09		
Median				2.11	1.45		

High School and Beyond Third Follow-Up Estimated Percentages,
Standard Errors and Design Effects, Using Third Follow-Up Data
Sophomore Cohort - Highest Quartile SES

Survey Item (or Composite Variable)		Estimate	SE	DEFF	DEFT	N	SE-SRS
Working at Full or Part Time Job, Feb '86	TY3A	61.00	1.30	2.29	1.51	3240	0.86
Taking Academic Courses, Feb '86	TY3C	53.65	1.29	2.17	1.47	3240	0.88
Looking For Work, Feb '86	TY3I	6.73	0.63	2.03	1.42	3240	0.44
Currently Married	TY41	13.11	0.90	2.30	1.52	3232	0.59
Currently Divorced	TY41	1.21	0.27	1.90	1.38	3232	0.19
Currently Have One or More Children	TY49	9.12	0.70	1.89	1.38	3228	0.51
Expect to Have Three or More Children	TY48	39.37	1.12	1.64	1.28	3120	0.87
In PSE 84-86: Earned No Degree	TY21I-22I	27.07	2.01	2.08	1.44	1020	1.39
In PSE 84-86: Received Vocational Degree	TY21H-22H	13.48	1.53	2.05	1.43	1020	1.07
In PSE 84-86: Received 4 Year Degree	TY21H-22H	47.08	2.23	2.04	1.43	1020	1.56
Enrolled in PSE, Oct '84	TY21C-22C	59.20	1.37	2.48	1.57	3209	0.87
Enrolled in PSE, Oct '85	TY21C-22C	52.44	1.34	2.30	1.52	3209	0.88
In PSE 84-86: V. Dissat W/Career Couns	TY28E	5.11	0.67	2.16	1.47	2335	0.46
In PSE 84-86: Some Sat With Curriculum	TY28I	51.01	1.33	1.66	1.29	2340	1.03
Applied for Grad/Professional School	TY39	7.72	0.64	1.79	1.34	3096	0.48
If Employed 84-86, 1st Job Clerical	TY8A	26.04	1.07	1.83	1.35	3081	0.79
Had Any Job Between 84-86	TY7	95.70	0.43	1.48	1.22	3240	0.36
Did Not Receive Unemployment-'85	TY17D85	94.61	1.03	1.46	1.21	703	0.85
Currently Registered to Vote	TY56	76.47	1.06	1.94	1.39	3116	0.76
Have Voted Since 1984	TY57	63.56	1.23	2.02	1.42	3114	0.86
Active Participant in Service Org	TY59K	2.44	0.32	1.36	1.17	3089	0.28
Job Security Very Important	TY16C	67.92	1.23	2.13	1.46	3061	0.84
Success in Job Very Important	TY68A	82.46	0.95	1.95	1.40	3115	0.68
Marrying the Right Person Very Important	TY68B	85.29	0.87	1.85	1.36	3106	0.64
Having Lots of Money Very Important	TY68C	22.37	0.99	1.74	1.32	3116	0.75
Being a Community Leader Very Important	TY68F	7.95	0.56	1.31	1.14	3112	0.48
Providing Better Opp for Kids Very Imp	TY68G	55.74	1.25	1.97	1.40	3098	0.89
Correcting Social Inequalities Very Imp	TY68J	12.17	0.80	1.85	1.36	3107	0.59
Having Children Very Important	TY68K	50.68	1.25	1.94	1.39	3112	0.90
Having Leisure Time Very Important	TY68L	73.39	1.08	1.86	1.36	3116	0.79
Mean				1.92	1.38		
Minimum				1.31	1.14		
Maximum				2.48	1.57		
Standard Deviation				0.28	0.10		
Median				1.94	1.39		

High School and Beyond Third Follow-Up Estimated Percentages,
Standard Errors and Design Effects, Using Third Follow-Up Data
Sophomore Cohort - Received No Post-Secondary Education

Survey Item (or Composite Variable)		Estimate	SE	DEFF	DEFT	N	SE-SRS
Working at Full or Part Time Job, Feb '86	TY3A	71.41	0.90	1.91	1.38	4793	0.65
Taking Academic Courses, Feb '86	TY3C	0.36	0.10	1.39	1.18	4793	0.09
Looking For Work, Feb '86	TY3I	11.90	0.66	1.96	1.40	4793	0.47
Currently Married	TY41	34.76	0.97	1.99	1.41	4792	0.69
Currently Divorced	TY41	2.52	0.27	1.42	1.19	4792	0.23
Currently Have One or More Children	TY49	35.85	1.03	2.21	1.49	4793	0.69
Expect to Have Three or More Children	TY48 .	26.49	0.91	1.95	1.40	4614	0.65
In PSE 84-86: Earned No Degree	TY21I-22I	n/a	n/a	n/a	n/a	n/a	n/a
In PSE 84-86: Received Vocational Degree	TY21H-22H	n/a	n/a	n/a	n/a	n/a	n/a
in PSE 84-86: Received 4 Year Degree	TY21H-22H	n/a	n/a	n/a	n/a	n/a	n/a
Enrolled in PSE, Oct '84	TY21C-22C	n/a	n/a	n/a	n/a	n/a	n/a
Enrolled in PSE, Oct '85	TY21C-22C	n/a	n/a	n/a	n/a	n/a	n/a
In PSE 84-86: V. Dissat W/Career Couns	TY28E	n/a	n/a	n/a	n/a	n/a	n/a
In PSE 84-86: Some Sat With Curriculum	TY28I	n/a	n/a	n/a	n/a	n/a	n/a
Applied for Grad/Professional School	TY39	1.94	0.35	2.82	1.68	4444	0.21
If Employed 84-86, 1st Job Clerical	TY8A	18.82	0.77	1.69	1.30	4323	0.59
Had Any Job Between 84-86	TY7	91.31	0.59	2.09	1.45	4811	0.41
Did Not Receive Unemployment-'85	TY17D85	81.82	1.44	2.05	1.43	1472	1.01
Currently Registered to Vote	TY56	55.69	1.10	2.23	1.49	4557	0.74
Have Voted Since 1984	TY57	38.32	1.05	2.13	1.46	4551	0.72
Active Participant in Service Org	TY59K	0.64	0.13	1.25	1.12	4512	0.12
Job Security Very Important	TY16C	78.94	0.84	1.87	1.37	4423	0.61
Success in Job Very Important	TY68A	75.49	0.91	2.02	1.42	4543	0.64
Marrying the Right Person Very Important	TY68B	87.00	0.72	2.05	1.43	4533	0.50
Having Lots of Money Very Important	TY68C	23.96	0.86	1.83	1.35	4548	0.63
Being a Community Leader Very Important	TY68F	5.59	0.50	2.13	1.46	4542	0.34
Providing Better Opp for Kids Very Imp	TY68G	78.23	0.96	2.43	1.56	4532	0.61
Correcting Social Inequalities Very Imp	TY68J	9.07	0.64	2.26	1.50	4516	0.43
Having Children Very Important	TY68K	46.24	0.99	1.79	1.34	4540	0.74
Having Leisure Time Very Important	TY68L	63.13	1.03	2.05	1.43	4552	0.72
Mean				1.98	1.40		
Minimum				1.25	1.12		
Maximum				2.82	1.68		
Standard Deviation				0.34	0.12		
Median				2.02	1.42		

High School and Beyond Third Follow-Up Estimated Percentages,
Standard Errors and Design Effects, Using Third Follow-Up Data
Sophomore Cohort - Received Some Post-Secondary Education

Survey Item (or Composite Variable)		Estimate	SE	DEFF	DEFT	N	SE-SRS
Working at Full or Part Time Job, Feb '86	TY3A	67.22	0.76	2.03	1.43	7675	0.54
Taking Academic Courses, Feb '86	TY3C	39.97	0.81	2.11	1.45	7675	0.56
Looking For Work, Feb '86	TY3I	7.95	0.44	2.05	1.43	7675	0.31
Currently Married	TY41	16.56	0.59	1.92	1.39	7635	0.43
Currently Divorced	TY41	1.55	0.23	2.53	1.59	7635	0.14
Currently Have One or More Children	TY49	14.58	0.60	2.18	1.48	7631	0.40
Expect to Have Three or More Children	TY48	34.36	0.80	2.09	1.45	7378	0.55
In PSE 84-86: Earned No Degree	TY21I-22I	30.87	1.64	2.20	1.48	1753	1.10
In PSE 84-86: Received Vocational Degree	TY21H-22H	40.86	1.81	2.36	1.53	1743	1.18
In PSE 84-86: Received 4 Year Degree	TY21H-22H	n/a	n/a	n/a	n/a	n/a	n/a
Enrolled in PSE, Oct '84	TY21C-22C	49.66	0.83	2.08	1.44	7499	0.58
Enrolled in PSE, Oct '85	TY21C-22C	43.99	0.82	2.05	1.43	7499	0.57
In PSE 84-86: V. Dissat W/Career Couns	TY28E	5.67	0.46	2.12	1.46	5483	0.31
In PSE 84-86: Some Sat With Curriculum	TY28I	51.20	0.93	1.91	1.38	5484	0.67
Applied for Grad/Professional School	TY39	4.42	0.36	2.21	1.49	7225	0.24
If Employed 84-86, 1st Job Clerical	TY8A	28.97	0.78	2.16	1.47	7232	0.53
Had Any Job Between 84-86	TY7	95.26	0.35	2.05	1.43	7667	0.24
Did Not Receive Unemployment-'85	TY17D85	89.14	0.99	2.16	1.47	2125	0.68
Currently Registered to Vote	TY56	72.48	0.77	2.20	1.48	7345	0.52
Have Voted Since 1984	TY57	58.37	0.81	1.99	1.41	7331	0.58
Active Participant in Service Org	TY59K	1.90	0.19	1.46	1.21	7285	0.16
Job Security Very Important	TY16C	74.77	0.76	2.23	1.49	7215	0.51
Success in Job Very Important	TY68A	82.43	0.63	2.01	1.42	7354	0.44
Marrying the Right Person Very Important	TY68B	85.78	0.61	2.22	1.49	7339	0.41
Having Lots of Money Very Important	TY68C	22.12	0.68	2.00	1.41	7355	0.48
Being a Community Leader Very Important	TY68F	6.68	0.39	1.77	1.33	7349	0.29
Providing Better Opp for Kids Very Imp	TY68G	65.62	0.82	2.16	1.47	7325	0.55
Correcting Social Inequalities Very Imp	TY68J	11.73	0.55	2.13	1.46	7327	0.38
Having Children Very Important	TY68K	48.46	0.86	2.19	1.48	7346	0.58
Having Leisure Time Very Important	TY68L	71.39	0.76	2.06	1.44	7357	0.53
Mean				2.09	1.44		
Minimum				1.46	1.21		
Maximum				2.53	1.59		
Standard Deviation				0.19	0.07		
Median				2.11	1.45		

High School and Beyond Third Follow-Up Estimated Percentages,
Standard Errors and Design Effects, Using Third Follow-Up Data
Sophomore Cohort - Received a Four-Year Degree

Survey Item (or Composite Variable)		Estimate	SE	DEFF	DEFT	N	SE-SRS
Working at Full or Part Time Job, Feb '86	TY3A	44.15	2.32	2.00	1.41	915	1.64
Taking Academic Courses, Feb '86	TY3C	84.13	1.66	1.89	1.37	915	1.21
Looking For Work, Feb '86	TY3I	8.62	1.36	2.14	1.46	915	0.93
Currently Married	TY41	4.53	0.91	1.74	1.32	915	0.69
Currently Divorced	TY41	0.02	0.02	0.16	0.39	915	0.04
Currently Have One or More Children	TY49	1.57	0.55	1.79	1.34	913	0.41
Expect to Have Three or More Children	TY48	42.63	2.12	1.64	1.28	889	1.66
In PSE 84-86: Earned No Degree	TY21I-22I	1.34	0.41	1.08	1.04	859	0.39
In PSE 84-86: Received Vocational Degree	TY21H-22H	1.02	0.45	1.72	1.31	859	0.34
In PSE 84-86: Received 4 Year Degree	TY21H-22H	97.05	0.69	1.44	1.20	859	0.58
Enrolled in PSE, Oct '84	TY21C-22C	93.37	1.02	1.54	1.24	911	0.82
Enrolled in PSE, Oct '85	TY21C-22C	81.33	1.82	1.99	1.41	911	1.29
In PSE 84-86: V. Dissat W/Career Couns	TY28E	4.59	0.80	1.29	1.14	880	0.71
In PSE 84-86: Some Sat With Curriculum	TY28I	45.48	2.32	1.91	1.38	884	1.67
Applied for Grad/Professional School	TY39	20.09	1.77	1.77	1.33	904	1.33
If Employed 84-86, 1st Job Clerical	TY8A	26.34	1.88	1.60	1.27	880	1.48
Had Any Job Between 84-86	TY7	97.42	0.59	1.28	1.13	917	0.52
Did Not Receive Unemployment-'85	TY17D85	99.65	0.35	0.60	0.78	172	0.45
Currently Registered to Vote	TY56	82.24	1.68	1.74	1.32	901	1.27
Have Voted Since 1984	TY57	70.36	2.04	1.81	1.34	902	1.52
Active Participant in Service Org	TY59K	3.31	0.72	1.45	1.20	892	0.60
Job Security Very Important	TY16C	64.06	2.10	1.71	1.31	894	1.60
Success in Job Very Important	TY68A	85.91	1.64	2.01	1.42	903	1.16
Marrying the Right Person Very Important	TY68B	87.23	1.48	1.76	1.33	902	1.11
Having Lots of Money Very Important	TY68C	19.41	1.77	1.81	1.35	903	1.32
Being a Community Leader Very Important	TY68F	13.04	1.43	1.62	1.27	902	1.12
Providing Better Opp for Kids Very Imp	TY68G	49.98	2.21	1.76	1.33	900	1.67
Correcting Social Inequalities Very Imp	TY68J	17.13	1.74	1.92	1.39	901	1.26
Having Children Very Important	TY68K	52.66	2.31	1.94	1.39	903	1.66
Having Leisure Time Very Important	TY68L	73.15	1.96	1.77	1.33	902	1.48
Mean				1.63	1.26		
Minimum				0.16	0.39		
Maximum				2.14	1.46		
Standard Deviation				0.42	0.21		
Median				1.75	1.33		

High School and Beyond Third Follow-Up Estimated Percentages,
Standard Errors and Design Effects, Using Third Follow-Up Data
Senior Cohort - Total Population

Survey Item (or Composite Variable)		Estimate	SE	DEFF	DEFT	N	SE-SRS
Working at Full or Part Time Job, Feb '86	TE3A	77.50	0.57	1.98	1.41	10492	0.41
Taking Academic Courses, Feb '86	TE3C	11.32	0.48	2.37	1.54	10492	0.31
Looking For Work, Feb '86	TE3I	8.02	0.39	2.13	1.46	10492	0.27
Currently Married	TE41	36.33	0.74	2.48	1.57	10473	0.47
Currently Divorced	TE41	2.78	0.25	2.46	1.57	10473	0.16
Currently Have One or More Children	TE49	26.76	0.73	2.86	1.69	10445	0.43
Expect to Have Three or More Children	TE48	32.70	0.72	2.40	1.55	10150	0.47
In PSE 84-86: Earned No Degree	TE21I-22I	7.61	0.80	2.13	1.46	2360	0.55
In PSE 84-86: Received Vocational Degree	TE21H-22H	18.44	1.20	2.23	1.49	2347	0.80
In PSE 84-86: Received 4 Year Degree	TE21H-22H	67.13	1.44	2.20	1.48	2347	0.97
Enrolled in PSE, Oct '84	TE21C-22C	22.92	0.63	2.31	1.52	10370	0.41
Enrolled in PSE, Oct '85	TE21C-22C	17.01	0.58	2.45	1.57	10370	0.37
In PSE 84-86: V. Dissat W/Career Couns	TE28E	6.55	0.57	2.20	1.48	4184	0.38
In PSE 84-86: Some Sat With Curriculum	TE28I	51.27	1.10	2.03	1.42	4184	0.77
Applied for Grad/Professional School	TE39	6.22	0.38	2.50	1.58	9917	0.24
If Employed 84-86, 1st Job Clerical	TE8A	23.07	0.63	2.22	1.49	9795	0.43
Had Any Job Between 84-86	TE7	94.75	0.32	2.15	1.47	10509	0.22
Did Not Receive Unemployment-'85	TE17D85	82.71	1.08	2.35	1.53	2860	0.71
Currently Registered to Vote	TE56	72.34	0.74	2.77	1.66	10110	0.44
Have Voted Since 1984	TE57	60.66	0.77	2.50	1.58	10098	0.49
Active Participant in Service Org	TE59K	2.02	0.20	1.93	1.39	10029	0.14
Job Security Very Important	TE16C	72.85	0.72	2.56	1.60	9887	0.45
Success in Job Very Important	TE68A	75.76	0.58	1.87	1.37	10123	0.43
Marrying the Right Person Very Important	TE68B	87.06	0.50	2.23	1.49	10102	0.33
Having Lots of Money Very Important	TE66C	20.95	0.61	2.26	1.50	10111	0.40
Being a Community Leader Very Important	TE68F	5.35	0.31	1.93	1.39	10107	0.22
Providing Better Opp for Kids Very Imp	TE68G	65.69	0.73	2.35	1.53	10065	0.47
Correcting Social Inequalities Very Imp	TE68J	9.73	0.44	2.20	1.48	10089	0.29
Having Children Very Important	TE68K	48.58	0.77	2.40	1.55	10101	0.50
Having Leisure Time Very Important	TE68L	68.86	0.66	2.07	1.44	10123	0.46
Mean				2.28	1.51		
Minimum				1.87	1.37		
Maximum				2.86	1.69		
Standard Deviation				0.23	0.08		
Median				2.25	1.50		

High School and Beyond Third Follow-Up Estimated Percentages,
Standard Errors and Design Effects, Using Third Follow-Up Weights
Senior Cohort - Hispanic

Survey Item (or Composite Variable)		Estimate	SE	DEFF	DEFT	N	SE-SRS
Working at Full or Part Time Job, Feb '86	TE3A	76.53	1.98	4.24	2.06	1941	0.96
Taking Academic Courses, Feb '86	TE3C	13.48	1.35	3.05	1.75	1941	0.78
Looking For Work, Feb '86	TE3I	8.74	1.43	4.97	2.23	1941	0.64
Currently Married	TE41	38.05	2.31	4.37	2.09	1934	1.10
Currently Divorced	TE41	3.90	0.90	4.14	2.04	1934	0.44
Currently Have One or More Children	TE49	35.89	2.40	4.82	2.19	1932	1.09
Expect to Have Three or More Children	TE48	32.48	2.38	4.80	2.19	1853	1.09
In PSE 84-86: Earned No Degree	TE21I-22I	9.80	1.98	1.54	1.24	346	1.60
In PSE 84-86: Received Vocational Degree	TE21H-22H	40.85	6.26	5.53	2.35	341	2.66
In PSE 84-86: Received 4 Year Degree	TE21H-22H	41.63	5.25	3.86	1.97	341	2.67
Enrolled in PSE, Oct '84	TE21C-22C	20.44	1.65	3.21	1.79	1916	0.92
Enrolled in PSE, Oct '85	TE21C-22C	16.77	1.45	2.87	1.69	1916	0.85
In PSE 84-86: V. Dissat W/Career Couns	TE28E	8.71	2.51	5.75	2.40	726	1.05
In PSE 84-86: Some Sat With Curriculum	TE28I	50.70	3.70	3.97	1.99	724	1.86
Applied for Grad/Professional School	TE39	3.41	0.79	3.32	1.82	1768	0.43
If Employed 84-86, 1st Job Clerical	TE8A	26.95	2.26	4.63	2.15	1791	1.05
Had Any Job Between 84-86	TE7	91.55	1.46	5.32	2.31	1943	0.63
Did Not Receive Unemployment-'85	TE17D85	87.76	2.32	2.56	1.60	511	1.45
Currently Registered to Vote	TE56	70.27	2.11	3.86	1.96	1817	1.07
Have Voted Since 1984	TE57	52.78	2.44	4.33	2.08	1816	1.17
Active Participant in Service Org	TE59K	1.15	0.46	3.37	1.84	1808	0.25
Job Security Very Important	TE16C	78.24	2.08	4.50	2.12	1771	0.98
Success in Job Very Important	TE68A	79.25	1.94	4.17	2.04	1821	0.95
Marrying the Right Person Very Important	TE68B	86.45	1.66	4.27	2.07	1818	0.80
Having Lots of Money Very Important	TE68C	24.22	2.08	4.30	2.07	1816	1.01
Being a Community Leader Very Important	TE68F	7.78	1.01	2.56	1.60	1818	0.63
Providing Better Opp for Kids Very Imp	TE68G	78.47	2.07	4.61	2.15	1816	0.96
Correcting Social Inequalities Very Imp	TE68J	14.14	1.78	4.75	2.18	1813	0.82
Having Children Very Important	TE68K	49.89	2.36	4.04	2.01	1817	1.17
Having Leisure Time Very Important	TE68L	66.23	2.24	4.07	2.02	1820	1.11
Mean				4.06	2.00		
Minimum				1.54	1.24		
Maximum				5.75	2.40		
Standard Deviation				0.93	0.25		
Median				4.21	2.05		

High School and Beyond Third Follow-Up Estimated Percentages,
Standard Errors and Design Effects, Using Third Follow-Up Weights
Senior Cohort - Black

Survey Item (or Composite Variable)		Estimate	SE	DEFF	DEFT	N	SE-SRS
Working at Full or Part Time Job, Feb '86	TE3A	74.10	1.25	2.21	1.49	2708	0.84
Taking Academic Courses, Feb '86	TE3C	10.06	0.91	2.50	1.58	2708	0.58
Looking For Work, Feb '86	TE3I	12.29	1.00	2.49	1.58	2708	0.63
Currently Married	TE41	22.65	1.25	2.41	1.55	2699	0.81
Currently Divorced	TE41	1.95	0.57	4.63	2.15	2699	0.27
Currently Have One or More Children	TE49	42.65	1.51	2.52	1.59	2687	0.95
Expect to Have Three or More Children	TE48	29.68	1.28	2.06	1.43	2633	0.89
In PSE 84-86: Earned No Degree	TE21I-22I	9.96	2.57	3.62	1.90	491	1.35
In PSE 84-86: Received Vocational Degree	TE21H-22H	29.03	3.23	2.47	1.57	488	2.05
In PSE 84-86: Received 4 Year Degree	TE21H-22H	51.09	3.71	2.69	1.64	488	2.26
Enrolled in PSE, Oct '84	TE21C-22C	16.71	0.97	1.82	1.35	2663	0.72
Enrolled in PSE, Oct '85	TE21C-22C	13.02	0.93	2.04	1.43	2663	0.65
In PSE 84-86: V. Dissat W/Career Couns	TE28E	6.97	1.32	2.58	1.61	956	0.82
In PSE 84-86: Some Sat With Curriculum	TE28I	51.53	2.29	2.00	1.42	955	1.62
Applied for Grad/Professional School	TE39	4.37	0.55	1.81	1.35	2548	0.40
If Employed 84-86, 1st Job Clerical	TE8A	28.59	1.31	2.06	1.44	2454	0.91
Had Any Job Between 84-86	TE7	90.46	1.06	3.55	1.88	2718	0.56
Did Not Receive Unemployment-'85	TE17D85	87.55	1.76	2.58	1.61	905	1.10
Currently Registered to Vote	TE56	77.79	1.21	2.23	1.49	2619	0.81
Have Voted Since 1984	TE57	62.47	1.38	2.12	1.45	2608	0.95
Active Participant in Service Org	TE59K	2.19	0.34	1.36	1.17	2583	0.29
Job Security Very Important	TE16C	83.28	1.16	2.43	1.56	2542	0.74
Success in Job Very Important	TE68A	81.97	1.08	2.08	1.44	2623	0.75
Marrying the Right Person Very Important	TE68B	85.33	0.98	2.00	1.41	2618	0.69
Having Lots of Money Very Important	TE68C	29.80	1.43	2.55	1.60	2622	0.89
Being a Community Leader Very Important	TE68F	11.29	0.97	2.46	1.57	2619	0.62
Providing Better Opp for Kids Very Imp	TE68G	87.80	0.94	2.15	1.47	2614	0.64
Correcting Social Inequalities Very Imp	TE68J	22.71	1.26	2.35	1.53	2613	0.82
Having Children Very Important	TE68K	37.74	1.35	2.04	1.43	2617	0.95
Having Leisure Time Very Important	TE68L	65.93	1.39	2.24	1.50	2623	0.93
Mean				2.40	1.54		
Minimum				1.36	1.17		
Maximum				4.63	2.15		
Standard Deviation				0.61	0.18		
Median				2.30	1.52		

High School and Beyond Third Follow-Up Estimated Percentages,
Standard Errors and Design Effects, Using Third Follow-Up Data
Senior Cohort - Whites and Others

Survey Item (or Composite Variable)		Estimate	SE	DEFF	DEFT	N	SE-SRS
Working at Full or Part Time Job, Feb '86	TE3A	78.05	0.66	1.50	1.23	5843	0.54
Taking Academic Courses, Feb '86	TE3C	11.34	0.53	1.61	1.27	5843	0.41
Looking For Work, Feb '86	TE3I	7.36	0.43	1.57	1.25	5843	0.34
Currently Married	TE41	38.16	0.83	1.70	1.30	5840	0.64
Currently Divorced	TE41	2.82	0.29	1.78	1.33	5840	0.22
Currently Have One or More Children	TE49	23.85	0.80	2.06	1.43	5826	0.56
Expect to Have Three or More Children	TE48	33.15	0.84	1.80	1.34	5664	0.63
In PSE 84-86: Earned No Degree	TE21I-22I	7.28	0.90	1.81	1.34	1523	0.67
In PSE 84-86: Received Vocational Degree	TE21H-22H	16.41	1.25	1.74	1.32	1518	0.95
In PSE 84-86: Received 4 Year Degree	TE21H-22H	69.86	1.56	1.75	1.32	1518	1.18
Enrolled in PSE, Oct '84	TE21C-22C	23.98	0.73	1.67	1.29	5791	0.56
Enrolled in PSE, Oct '85	TE21C-22C	17.59	0.67	1.77	1.33	5791	0.50
In PSE 84-86: V. Dissat W/Career Couns	TE28E	6.39	0.64	1.72	1.31	2502	0.49
In PSE 84-86: Some Sat With Curriculum	TE28I	51.26	1.25	1.55	1.25	2505	1.00
Applied for Grad/Professional School	TE39	6.67	0.45	1.86	1.36	5601	0.33
If Employed 84-86, 1st Job Clerical	TE8A	22.06	0.72	1.67	1.29	5550	0.56
Had Any Job Between 84-86	TE7	95.59	0.34	1.64	1.28	5848	0.27
Did Not Receive Unemployment-'85	TE17D85	81.39	1.32	1.66	1.29	1444	1.02
Currently Registered to Vote	TE56	71.70	0.85	2.02	1.42	5674	0.60
Have Voted Since 1984	TE57	60.95	0.88	1.84	1.36	5674	0.65
Active Participant in Service Org	TE59K	2.06	0.23	1.51	1.23	5638	0.19
Job Security Very Important	TE16C	71.02	0.81	1.76	1.33	5574	0.61
Success in Job Very Important	TE68A	74.64	0.68	1.38	1.17	5679	0.58
Marrying the Right Person Very Important	TE68B	87.35	0.57	1.65	1.29	5666	0.44
Having Lots of Money Very Important	TE68C	19.46	0.69	1.70	1.31	5673	0.53
Being a Community Leader Very Important	TE68F	4.33	0.34	1.55	1.25	5670	0.27
Providing Better Opp for Kids Very Imp	TE68G	61.63	0.81	1.56	1.25	5635	0.65
Correcting Social Inequalities Very Imp	TE68J	7.57	0.47	1.76	1.33	5663	0.35
Having Children Very Important	TE68K	50.04	0.89	1.80	1.34	5667	0.66
Having Leisure Time Very Important	TE68L	69.46	0.76	1.55	1.25	5680	0.61
Mean				1.70	1.30		
Minimum				1.38	1.17		
Maximum				2.06	1.43		
Standard Deviation				0.15	0.06		
Median				1.70	1.31		

High School and Beyond Third Follow-Up Estimated Percentages,
Standard Errors and Design Effects, Using Third Follow-Up Data
Senior Cohort - Female

Survey Item (or Composite Variable)		Estimate	SE	DEFF	DEFT	N	SE-SRS
Working at Full or Part Time Job, Feb '86	TE3A	74.29	0.80	1.88	1.37	5677	0.58
Taking Academic Courses, Feb '86	TE3C	9.97	0.59	2.17	1.47	5677	0.40
Looking For Work, Feb '86	TE3I	7.96	0.52	2.07	1.44	5677	0.36
Currently Married	TE41	42.42	1.02	2.42	1.55	5660	0.66
Currently Divorced	TE41	2.97	0.35	2.45	1.56	5660	0.23
Currently Have One or More Children	TE49	32.30	1.00	2.59	1.61	5650	0.62
Expect to Have Three or More Children	TE48	32.90	0.95	2.27	1.51	5521	0.63
In PSE 84-86: Earned No Degree	TE21I-22I	6.58	1.02	2.20	1.48	1293	0.69
In PSE 84-86: Received Vocational Degree	TE21H-22H	19.71	1.68	2.28	1.51	1284	1.11
In PSE 84-86: Received 4 Year Degree	TE21H-22H	66.55	1.98	2.26	1.50	1284	1.32
Enrolled in PSE, Oct '84	TE21C-22C	22.23	0.86	2.41	1.55	5618	0.55
Enrolled in PSE, Oct '85	TE21C-22C	16.04	0.76	2.40	1.55	5618	0.49
In PSE 84-86: V. Dissat W/Career Couns	TE28E	6.08	0.76	2.28	1.51	2269	0.50
In PSE 84-86: Some Sat With Curriculum	TE28I	49.12	1.49	2.01	1.42	2273	1.05
Applied for Grad/Professional School	TE39	6.63	0.52	2.38	1.54	5389	0.34
If Employed 84-86, 1st Job Clerical	TE8A	37.60	1.03	2.31	1.52	5154	0.67
Had Any Job Between 84-86	TE7	91.76	0.55	2.27	1.51	5686	0.36
Did Not Receive Unemployment-'85	TE17D85	88.79	1.16	2.26	1.50	1690	0.77
Currently Registered to Vote	TE56	72.87	0.96	2.56	1.60	5500	0.60
Have Voted Since 1984	TE57	61.45	1.01	2.35	1.53	5492	0.66
Active Participant in Service Org	TE59K	1.47	0.24	2.23	1.49	5465	0.16
Job Security Very Important	TE16C	72.35	0.93	2.37	1.54	5367	0.60
Success in Job Very Important	TE68A	71.08	0.89	2.11	1.45	5509	0.61
Marrying the Right Person Very Important	TE68B	87.63	0.65	2.14	1.46	5505	0.44
Having Lots of Money Very Important	TE68C	15.91	0.76	2.36	1.54	5504	0.49
Being a Community Leader Very Important	TE68F	3.79	0.35	1.83	1.35	5500	0.26
Providing Better Opp for Kids Very Imp	TE68G	66.75	0.94	2.19	1.48	5489	0.64
Correcting Social Inequalities Very Imp	TE68J	9.77	0.61	2.29	1.51	5489	0.40
Having Children Very Important	TE68K	54.55	1.01	2.25	1.50	5500	0.67
Having Leisure Time Very Important	TE68L	68.44	0.94	2.27	1.51	5509	0.63
Mean				2.26	1.50		
Minimum				1.83	1.35		
Maximum				2.59	1.61		
Standard Deviation				0.17	0.06		
Median				2.27	1.51		

High School and Beyond Third Follow-Up Estimated Percentages, Standard Errors and Design Effects, Using Third Follow-Up Data
Senior Cohort - Male

Survey Item (or Composite Variable)		Estimate	SE	DEFF	DEFT	N	SE-SRS
Working at Full or Part Time Job, Feb '86	TE3A	80.87	0.83	2.16	1.47	4815	0.57
Taking Academic Courses, Feb '86	TE3C	12.74	0.68	2.01	1.42	4815	0.48
Looking For Work, Feb '86	TE3I	8.08	0.57	2.08	1.44	4815	0.39
Currently Married	TE41	29.94	1.00	2.29	1.51	4813	0.66
Currently Divorced	TE41	2.58	0.33	2.12	1.46	4813	0.23
Currently Have One or More Children	TE49	20.93	0.89	2.28	1.51	4795	0.59
Expect to Have Three or More Children	TE48	32.49	1.05	2.32	1.52	4629	0.69
In PSE 84-86: Earned No Degree	TE21I-221	8.77	1.26	2.12	1.46	1067	0.87
In PSE 84-86: Received Vocational Degree	TE21H-22H	17.03	1.61	1.94	1.39	1063	1.15
In PSE 84-86: Received 4 Year Degree	TE21H-22H	67.78	2.08	2.11	1.45	1063	1.43
Enrolled in PSE, Oct '84	TE21C-22C	23.65	0.86	1.93	1.39	4752	0.62
Enrolled in PSE, Oct '85	TE21C-22C	18.02	0.75	1.83	1.35	4752	0.56
In PSE 84-86: V. Dissat W/Career Couns	TE28E	7.06	0.82	1.97	1.40	1915	0.59
In PSE 84-86: Some Sat With Curriculum	TE28I	53.59	1.67	2.13	1.46	1911	1.14
Applied for Grad/Professional School	TE39	5.77	0.51	2.18	1.48	4528	0.35
If Employed 84-86, 1st Job Clerical	TE8A	8.69	0.60	2.09	1.45	4641	0.41
Had Any Job Between 84-86	TE7	97.88	0.29	2.00	1.41	4823	0.21
Did Not Receive Unemployment-'85	TE17D85	75.66	1.86	2.20	1.48	1170	1.25
Currently Registered to Vote	TE56	71.79	1.08	2.65	1.63	4610	0.66
Have Voted Since 1984	TE57	59.83	1.11	2.37	1.54	4606	0.72
Active Participant in Service Org	TE59K	2.61	0.32	1.87	1.37	4564	0.24
Job Security Very Important	TE16C	72.33	1.04	2.43	1.56	4520	0.67
Success in Job Very Important	TE68A	80.74	0.81	1.93	1.39	4614	0.58
Marrying the Right Person Very Important	TE68B	86.45	0.75	2.21	1.49	4597	0.50
Having Lots of Money Very Important	TE68C	26.31	0.96	2.21	1.49	4607	0.65
Being a Community Leader Very Important	TE68F	6.99	0.50	1.76	1.33	4607	0.38
Providing Better Opp for Kids Very Imp	TE68G	64.56	1.05	2.20	1.48	4576	0.71
Correcting Social Inequalities Very Imp	TE68J	9.67	0.61	1.93	1.39	4600	0.44
Having Children Very Important	TE68K	42.23	1.13	2.39	1.54	4601	0.73
Having Leisure Time Very Important	TE68L	69.31	1.00	2.16	1.47	4614	0.68
Mean				2.13	1.46		
Minimum				1.76	1.33		
Maximum				2.65	1.63		
Standard Deviation				0.20	0.07		
Median				2.13	1.46		

High School and Beyond Third Follow-Up Estimated Percentages,
Standard Errors and Design Effects, Using Third Follow-Up Data
Senior Cohort - Lowest Quartile SES

Survey Item (or Composite Variable)		Estimate	SE	DEFF	DEFT	N	SE-SRS
Working at Full or Part Time Job, Feb '86	TE3A	74.01	1.09	2.25	1.50	3650	0.73
Taking Academic Courses, Feb '86	TE3C	7.52	0.63	2.06	1.44	3650	0.44
Looking For Work, Feb '86	TE3I	8.98	0.70	2.21	1.49	3650	0.47
Currently Married	TE41	43.87	1.33	2.63	1.62	3644	0.82
Currently Divorced	TE41	3.31	0.50	2.86	1.69	3644	0.30
Currently Have One or More Children	TE49	41.55	1.32	2.62	1.62	3636	0.82
Expect to Have Three or More Children	TE48	29.54	1.18	2.35	1.53	3533	0.77
In PSE 84-86: Earned No Degree	TE21I-22I	8.58	1.82	2.24	1.50	532	1.21
In PSE 84-86: Received Vocational Degree	TE21H-22H	27.97	2.86	2.13	1.46	526	1.96
In PSE 84-86: Received 4 Year Degree	TE21H-22H	49.76	3.21	2.17	1.47	526	2.18
Enrolled in PSE, Oct '84	TE21C-22C	13.47	0.82	2.07	1.44	3601	0.57
Enrolled in PSE, Oct '85	TE21C-22C	11.26	0.80	2.28	1.51	3601	0.53
In PSE 84-86: V. Dissat W/Career Couns	TE28E	4.76	0.82	1.63	1.28	1093	0.64
In PSE 84-86: Some Sat With Curriculum	TE28I	55.29	2.25	2.23	1.49	1092	1.50
Applied for Grad/Professional School	TE39	2.78	0.39	1.96	1.40	3423	0.28
If Employed 84-86, 1st Job Clerical	TE8A	26.39	1.20	2.46	1.57	3346	0.76
Had Any Job Between 84-86	TE7	91.86	0.74	2.65	1.63	3655	0.45
Did Not Receive Unemployment-'85	TE17D85	79.96	1.88	2.38	1.54	1070	1.22
Currently Registered to Vote	TE56	66.26	1.34	2.80	1.67	3513	0.80
Have Voted Since 1984	TE57	51.80	1.42	2.82	1.68	3508	0.84
Active Participant in Service Org	TE59K	1.04	0.22	1.67	1.29	3483	0.17
Job Security Very Important	TE16C	78.29	1.11	2.46	1.57	3407	0.71
Success in Job Very Important	TE68A	73.50	1.14	2.34	1.53	3517	0.74
Marrying the Right Person Very Important	TE68B	88.38	0.78	2.10	1.45	3511	0.54
Having Lots of Money Very Important	TE68C	20.47	1.04	2.33	1.52	3507	0.68
Being a Community Leader Very Important	TE68F	5.22	0.50	1.81	1.34	3515	0.38
Providing Better Opp for Kids Very Imp	TE68G	75.92	1.26	3.04	1.74	3506	0.72
Correcting Social Inequalities Very Imp	TE68J	10.47	0.66	1.61	1.27	3502	0.52
Having Children Very Important	TE68K	47.96	1.35	2.56	1.60	3511	0.84
Having Leisure Time Very Important	TE68L	65.23	1.30	2.62	1.62	3517	0.80
Mean				2.31	1.52		
Minimum				1.61	1.27		
Maximum				3.04	1.74		
Standard Deviation				0.36	0.12		
Median				2.31	1.52		

High School and Beyond Third Follow-Up Estimated Percentages,
Standard Errors and Design Effects, Using Third Follow-Up Data
Senior Cohort - Two Middle Quartiles SES

Survey Item (or Composite Variable)		Estimate	SE	DEFF	DEFT	N	SE-SRS
Working at Full or Part Time Job, Feb '86	TE3A	78.13	0.82	1.93	1.39	4949	0.59
Taking Academic Courses, Feb '86	TE3C	10.57	0.62	2.01	1.42	4949	0.44
Looking For Work, Feb '86	TE3I	7.95	0.52	1.86	1.36	4949	0.38
Currently Married	TE41	36.81	0.94	1.89	1.37	4936	0.69
Currently Divorced	TE41	3.08	0.38	2.35	1.53	4936	0.25
Currently Have One or More Children	TE49	26.26	0.95	2.31	1.52	4925	0.63
Expect to Have Three or More Children	TE48	32.61	0.97	2.07	1.44	4787	0.68
In PSE 84-86: Earned No Degree	TE21I-22I	8.68	1.27	2.16	1.47	1072	0.86
In PSE 84-86: Received Vocational Degree	TE21H-22H	22.38	1.84	2.09	1.44	1066	1.28
In PSE 84-86: Received 4 Year Degree	TE21H-22H	62.49	2.08	1.96	1.40	1066	1.48
Enrolled in PSE, Oct '84	TE21C-22C	21.38	0.83	1.99	1.41	4894	0.59
Enrolled in PSE, Oct '85	TE21C-22C	15.78	0.75	2.09	1.44	4894	0.52
In PSE 84-86: V. Dissat W/Career Couns	TE28E	7.70	0.81	1.78	1.33	1936	0.61
In PSE 84-86: Some Sat With Curriculum	TE28I	49.61	1.69	2.22	1.49	1940	1.14
Applied for Grad/Professional School	TE39	5.23	0.47	2.12	1.46	4686	0.33
If Employed 84-86, 1st Job Clerical	TE8A	24.00	0.89	2.00	1.41	4638	0.63
Had Any Job Between 84-86	TE7	94.99	0.44	2.00	1.41	4957	0.31
Did Not Receive Unemployment-'85	TE17D85	80.54	1.61	2.13	1.46	1283	1.11
Currently Registered to Vote	TE56	71.23	1.00	2.32	1.52	4767	0.66
Have Voted Since 1984	TE57	58.78	1.03	2.07	1.44	4763	0.71
Active Participant in Service Org	TE59K	2.44	0.30	1.84	1.36	4739	0.22
Job Security Very Important	TE16C	74.39	0.94	2.15	1.47	4674	0.64
Success in Job Very Important	TE68A	75.23	0.84	1.80	1.34	4782	0.62
Marrying the Right Person Very Important	TE68B	86.86	0.67	1.87	1.37	4774	0.49
Having Lots of Money Very Important	TE68C	20.80	0.84	2.03	1.42	4783	0.59
Being a Community Leader Very Important	TE68F	4.61	0.40	1.76	1.33	4773	0.30
Providing Better Opp for Kids Very Imp	TE68G	66.28	0.95	1.92	1.39	4756	0.69
Correcting Social Inequalities Very Imp	TE68J	8.90	0.59	2.07	1.44	4766	0.41
Having Children Very Important	TE68K	47.47	1.03	2.02	1.42	4772	0.72
Having Leisure Time Very Important	TE68L	68.30	0.91	1.85	1.36	4783	0.67
Mean				2.02	1.42		
Minimum				1.76	1.33		
Maximum				2.35	1.53		
Standard Deviation				0.16	0.06		
Median				2.02	1.42		

High School and Beyond Third Follow-Up Estimated Percentages,
Standard Errors and Design Effects, Using Third Follow-Up Data
Senior Cohort - Highest Quartile SES

Survey Item (or Composite Variable)		Estimate	SE	DEFF	DEFT	N	SE-SRS
Working at Full or Part Time Job, Feb '86	TE3A	79.15	1.26	1.82	1.35	1893	0.93
Taking Academic Courses, Feb '86	TE3C	17.10	1.16	1.78	1.34	1893	0.87
Looking For Work, Feb '86	TE3I	7.27	0.75	1.57	1.25	1893	0.60
Currently Married	TE41	27.65	1.35	1.71	1.31	1893	1.03
Currently Divorced	TE41	1.45	0.33	1.48	1.22	1893	0.27
Currently Have One or More Children	TE49	13.70	1.04	1.73	1.31	1884	0.79
Expect to Have Three or More Children	TE48	36.07	1.41	1.59	1.26	1830	1.12
In PSE 84-86: Earned No Degree	TE21I-22I	5.86	1.10	1.66	1.29	756	0.85
In PSE 84-86: Received Vocational Degree	TE21H-22H	10.38	1.46	1.73	1.32	755	1.11
In PSE 84-86: Received 4 Year Degree	TE21H-22H	78.33	1.94	1.67	1.29	755	1.50
Enrolled in PSE, Oct '84	TE21C-22C	36.41	1.48	1.76	1.33	1875	1.11
Enrolled in PSE, Oct '85	TE21C-22C	25.99	1.40	1.90	1.38	1875	1.01
In PSE 84-86: V. Dissat W/Career Couns	TE28E	5.36	0.93	1.95	1.40	1155	0.66
In PSE 84-86: Some Sat With Curriculum	TE28I	52.43	1.78	1.46	1.21	1152	1.47
Applied for Grad/Professional School	TE39	12.30	1.03	1.77	1.33	1808	0.77
If Employed 84-86, 1st Job Clerical	TE8A	17.44	1.11	1.55	1.24	1811	0.89
Had Any Job Between 84-86	TE7	96.90	0.49	1.50	1.23	1897	0.40
Did Not Receive Unemployment-'85	TE17D85	91.44	1.68	1.80	1.34	501	1.25
Currently Registered to Vote	TE56	81.46	1.21	1.77	1.33	1830	0.91
Have Voted Since 1984	TE57	74.68	1.41	1.92	1.39	1827	1.02
Active Participant in Service Org	TE59K	1.81	0.39	1.52	1.23	1807	0.31
Job Security Very Important	TE16C	63.43	1.55	1.87	1.37	1806	1.13
Success in Job Very Important	TE68A	79.49	1.23	1.68	1.30	1824	0.95
Marrying the Right Person Very Important	TE68B	86.32	1.09	1.84	1.35	1817	0.81
Having Lots of Money Very Important	TE68C	21.83	1.29	1.76	1.33	1821	0.97
Being a Community Leader Very Important	TE68F	7.53	0.82	1.74	1.32	1819	0.62
Providing Better Opp for Kids Very Imp	TE68G	53.84	1.52	1.68	1.30	1803	1.17
Correcting Social Inequalities Very Imp	TE68J	11.31	0.94	1.60	1.26	1821	0.74
Having Children Very Important	TE68K	52.31	1.64	1.97	1.40	1818	1.17
Having Leisure Time Very Important	TE68L	74.04	1.31	1.64	1.28	1823	1.03
Mean				1.71	1.31		
Minimum				1.46	1.21		
Maximum				1.97	1.40		
Standard Deviation				0.14	0.05		
Median				1.73	1.32		

High School and Beyond Third Follow-Up Estimated Percentages,
Standard Errors and Design Effects, Using Third Follow-Up Weights
Senior Cohort - Received No Post-Secondary Education

Survey Item (or Composite Variable)		Estimate	SE	DEFF	DEFT	N	SE-SRS
Working at Full or Part Time Job, Feb '86	TE3A	75.29	1.02	1.97	1.40	3515	0.73
Taking Academic Courses, Feb '86	TE3C	0.32	0.13	1.96	1.40	3515	0.09
Looking For Work, Feb '86	TE3I	8.25	0.63	1.85	1.36	3515	0.46
Currently Married	TE41	46.45	1.22	2.09	1.45	3523	0.84
Currently Divorced	TE41	4.13	0.51	2.34	1.53	3523	0.34
Currently Have One or More Children	TE49	41.13	1.24	2.22	1.49	3520	0.83
Expect to Have Three or More Children	TE48	30.50	1.14	2.10	1.45	3415	0.79
In PSE 84-86: Earned No Degree	TE21I-22I	n/a	n/a	n/a	n/a	n/a	n/a
In PSE 84-86: Received Vocational Degree	TE21H-22H	n/a	n/a	n/a	n/a	n/a	n/a
In PSE 84-86: Received 4 Year Degree	TE21H-22H	n/a	n/a	n/a	n/a	n/a	n/a
Enrolled in PSE, Oct '84	TE21C-22C	n/a	n/a	n/a	n/a	n/a	n/a
Enrolled in PSE, Oct '85	TE21C-22C	n/a	n/a	n/a	n/a	n/a	n/a
In PSE 84-86: V. Dissat w/Career Couns	TE28E	n/a	n/a	n/a	n/a	n/a	n/a
In PSE 84-86: Some Sat With Curriculum	TE28I	n/a	n/a	n/a	n/a	n/a	n/a
Applied for Grad/Professional School	TE39	0.78	0.19	1.59	1.26	3291	0.15
If Employed 84-86, 1st Job Clerical	TE8A	22.88	1.06	2.12	1.45	3202	0.74
Had Any Job Between 84-86	TE7	91.93	0.63	1.87	1.37	3526	0.46
Did Not Receive Unemployment-'85	TE17D85	73.71	2.19	2.28	1.51	924	1.45
Currently Registered to Vote	TE56	61.26	1.18	2.00	1.41	3387	0.84
Have Voted Since 1984	TE57	47.17	1.24	2.09	1.45	3388	0.86
Active Participant in Service Org	TE59K	1.35	0.27	1.88	1.37	3359	0.20
Job Security Very Important	TE16C	78.23	1.02	2.00	1.42	3254	0.72
Success in Job Very Important	TE68A	72.19	1.03	1.80	1.34	3391	0.77
Marrying the Right Person Very Important	TE68B	88.62	0.77	1.98	1.41	3381	0.55
Having Lots of Money Very Important	TE68C	21.45	1.00	2.01	1.42	3385	0.71
Being a Community Leader Very Important	TE68F	3.48	0.41	1.73	1.31	3384	0.31
Providing Better Opp for Kids Very Imp	TE68G	73.62	1.06	1.94	1.39	3381	0.76
Correcting Social Inequalities Very Imp	TE68J	7.03	0.60	1.85	1.36	3373	0.44
Having Children Very Important	TE68K	48.97	1.19	1.93	1.39	3382	0.86
Having Leisure Time Very Important	TE68L	65.24	1.17	2.06	1.43	3391	0.82
Mean				1.99	1.41		
Minimum				1.59	1.26		
Maximum				2.34	1.53		
Standard Deviation				0.17	0.06		
Median				1.98	1.41		